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SALADIN AND THE SARACENS

DAVID NICOLLE Ph.D, ANGUS McBRIDE

EDITOR: MARTIN WINDROW

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Text by
DAVID NICOLLE Ph.D
Colour plates by
ANGUS McBRIDE

Dedication
For Tinette, for whom the world moved once at Karak and twice at Ajlun.

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Introduction

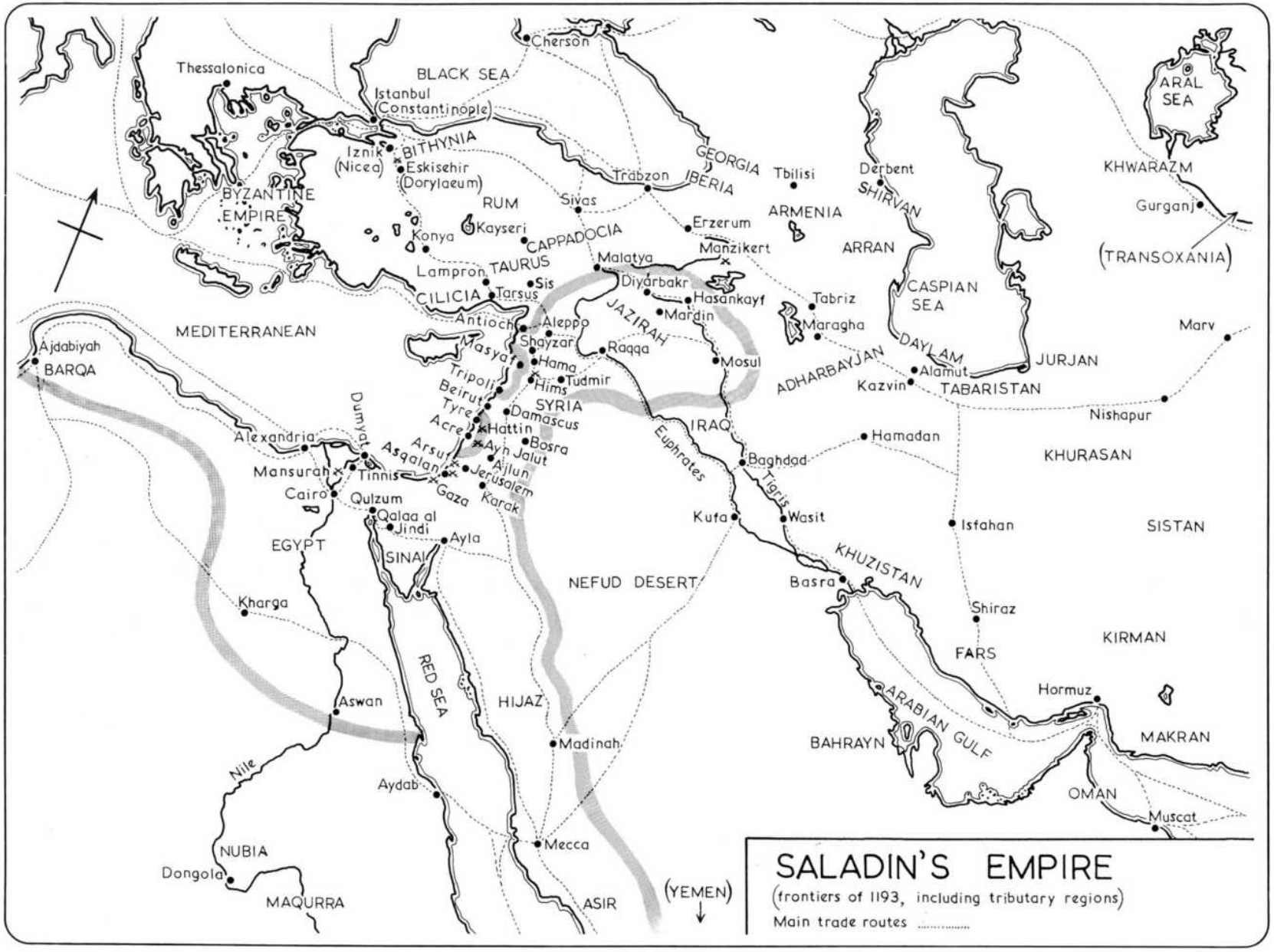
Salah al Din Yusuf ibn Ayyub, known to his Muslim contemporaries as al Nasir, 'The Victorious', and to an admiring Europe as Saladin, is the most famous single figure in the history of the Crusades, being even better known outside the English-speaking world than his Christian foe Richard the Lionheart. While it is natural that Saladin should be well remembered on the Arab and Islamic side, it says a lot about the man and about the entire Crusading enterprise that a Muslim Kurd should be perceived as the chief 'hero' of these events—even in Europe.

Traditionally Saladin is portrayed as a quiet, deeply religious and even humble man thrust into prominence by events. In reality he was typical of his day and his culture, though standing head and shoulders above most of his contemporaries in determination, personal morality, political judgement and leadership. Like Saladin himself, the societies and military systems that he and his successors led from defeat to eventual triumph were far more sophisticated than is generally realised. This book is an attempt to identify and to briefly describe the main strands in a period of military history which too often confronts Western students with a dauntingly tangled and obscure skein.

Chronology:
The Middle East, AD 1071–1300

1071	Saljuqs defeat Byzantines at Manzikert
1092	Death of Great Saljuq Sultan Malik Shah
1097	First Crusade; Crusaders defeat Saljuqs of Rum at Dorylaeum
1098	Crusaders capture Antioch; Fatimids seize Jerusalem
1099	Crusaders capture Jerusalem
1099–1105	Saljuq civil war
1102	Fatimids defeat Crusaders at Ramlah
1109	Crusaders capture Tripoli
1115–6	Crusaders occupy Transjordan
1119	Atabeg force defeats Crusaders at 'Field of Blood'
1122	Abbasid Caliph recruits own army for first time in many years
1127	Zangi made governor of Mosul

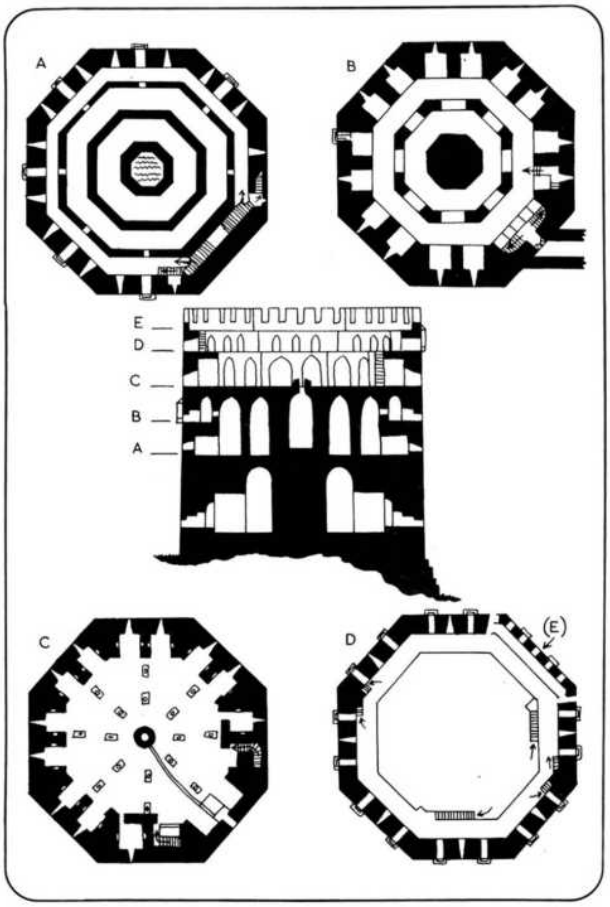
13th-century ceramic bottle top in the form of a warrior wearing a conical helmet. His shield, now broken, is decorated with a boss and crudely represented studs. (Mus. für Islam Kunst, Berlin)


Thessalonica
BLACK SEA
Cherson
Istanbul (Constantinople)
BITHYNIA
Iznik (Nicea)
Eskisehir (Dorylaeum)
BYZANTINE EMPIRE
RUM
Trabzon
GEORGIA
IBERIA
Tbilisi
Derbent
SHIRVAN
ARAL SEA
KHWARAZM
Gurganj
(TRANSOXANIA)
Sivas
ARMENIA
Erzerum
Konya
Kayseri
CAPPADOCIA
Manzikert
ARRAN
Malatya
Lampron
TAURUS
Sis
Diyarbakr
Hasankayf
Tabriz
CASPIAN SEA
CILICIA
Tarsus
Mardin
Maragha
Marv
MEDITERRANEAN
Antioch
Aleppo
JAZIRAH
Ajdabiyah
BARQA
Masyaf
Shayzar
Raqqa
Mosul
DAYLAM
JURJAN
Hama
Alamut
ADHARBAYJAN
Tripoli
Tudmir
Kazvin
TABARISTAN
Beirut
Hims
SYRIA
Nishapur
Tyre
Damascus
Dumyat
Alexandria
Acre
Hattin
IRAQ
Hamadan
Bosra
Ayn Jalut
Euphrates
Baghdad
KHURASAN
Arsuf
Asqalan
Ajlun
Mansurah
Tinnis
Jerusalem
Tigris
Cairo
Gaza
Karak
Qulzum
Kuta
Wasit
Isfahan
SISTAN
Qalaa al Jindi
Ayla
EGYPT
SINAI
KHUZISTAN
NEFUD DESERT
Basra
Kharga
Shiraz
KIRMAN
FARS
RED SEA
Hormuz
Aswan
HIJAZ
ARABIAN GULF
MAKRAN
BAHRAYN
Madinah
Nile
Aydab
OMAN
Muscat
NUBIA
Mecca
Dongola
MAQURRA
ASIR
(YEMEN)
SALADIN'S EMPIRE
(frontiers of 1193, including tributary regions)
Main trade routes

1138	Probable birth of Saladin
1144	Zangi captures Crusader-held Edessa
1146	Assassination of Zangi
1147	German Crusade defeated by Saljuqs of Rum
1148	Second Crusade defeated outside Damascus
1153	Crusaders capture Asqalan, last Fatimid stronghold in Palestine
1154	Nur al Din seizes Damascus
1157	Death of Sinjar, last effective Great Saljuq Sultan
1161	Saljuqs of Rum acknowledge Byzantine suzerainty
1163–8	Crusaders of Jerusalem unsuccessfully invade Egypt three times
1169	Saladin seizes Egypt
1174	Death of Nur al Din; Saladin seizes Damascus
1176	Saljuqs of Rum defeat Byzantines at Myriokephalon
1182–3	Renaud de Châtillon ravages Red Sea coasts
1183	Saladin seizes Aleppo
1187	Saladin defeats Crusader States at Hattin; captures Jerusalem but fails to take Tyre
1189–91	Siege and capture of Acre by Third Crusade
1191	Crusaders defeat Saladin at Arsuf
1192	Richard the Lionheart leaves Palestine
1193	Death of Saladin
1194	Khwarazmshah defeats last Saljuq Sultan of Iran
1204	Fourth Crusade captures Constantinople (Istanbul)
1218–21	Fifth Crusade invades Egypt; death of Ayyubid Sultan al Adil; defeat of Fifth Crusade
1220–22	Mongols invade eastern Islam
1228–9	Emperor Frederick II reaches Palestine, signs treaty with Ayyubid Sultan al Kamil
1238	Fragmentation of Ayyubid Empire
1243	Saljuqs of Rum defeated by Mongols
1245	Al Salih reunites Ayyubid Empire
1249–50	St Louis IX of France invades Egypt; death of al Salih; Mamluk revolution in Egypt; surrender of Louis IX
1258	Mongols sack Baghdad
1260	Mongols occupy Syria, are defeated by Mamluks at Ayn Jalut
1261	Byzantines recapture Constantinople (Istanbul)
1268	Mamluks capture Jaffa and Antioch
1289	Mamluks destroy Tripoli
1291	Mamluks capture Acre and all other Crusader possessions on Syrian-Palestinian mainland

Like more recent invaders of the Middle East, the First Crusade struck Syria and Palestine at a moment of acute Muslim weakness. Following the crushing Turkish victory over the Byzantine Empire at Manzikert in 1071, the Saljuqs of Rum (Anatolia) had yet to fully establish themselves in what is now the heartland of Turkey. The Great

The *Kizil Kule* (Red Tower) at Alanya in southern Turkey was designed by a Syrian architect in 1224 for the Saljuq Sultan of Rum. It forms the focus of a defensive system for a major naval base.

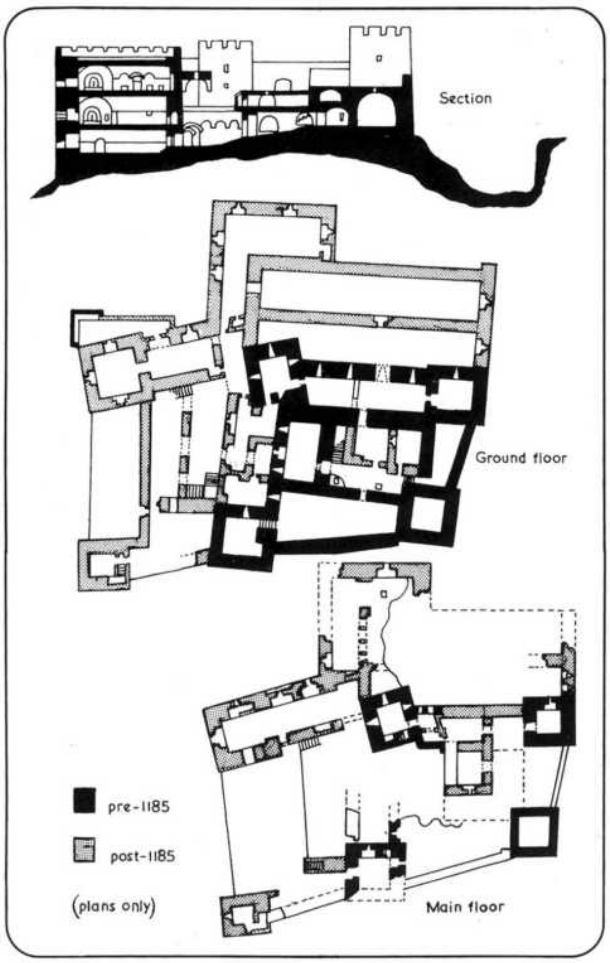


Saljuq Empire, centred upon Iraq and Iran, was crumbling fast. It had already lost effective control over much of south-eastern Turkey and Syria. Here a variety of Turkish, Armenian, Kurdish and Arab lords struggled for the possession of cities and castles. In the desert and the Euphrates valley, bedouin Arab tribes retained their independence and joined in a general scramble for control of the fertile regions.

The Fatimid Caliphate of Egypt was also in decline, though less obviously so. Fatimid dreams of conquering all Islam had been abandoned as power slipped from the hands of Shi'ite Caliphs into those of more realistic viziers (chief ministers). This post was now held by a family of Armenian origin which, having re-established order in Cairo following a series of civil wars and political upheavals, now concentrated on rebuilding Egypt's commercial wealth by control of the Red Sea and the trading ports of the Syrian coast. Palestine was simply a defensive buffer against future Turkish aggression.

These circumstances would never return, and future Crusades achieved nothing like the success of the First; their story was, by contrast, one of growing Muslim strength and unity. This process saw false starts and setbacks, but culminated in the expulsion of the Crusaders from the Middle East two centuries later. These years also saw the growing militarisation of the region's Muslim states; increasing conservatism in culture; and a sad decline in that toleration of non-Muslim minorities which had been characteristic of earlier periods (MAA 125, *The Armies of Islam 7th–11th Centuries*). How far such negative factors can be blamed on the Crusades is still hotly debated. The cohesion and strength built up in the face of a Christian European threat not only enabled the later Mamluk Sultanate to check Mongol onslaughts in the late 13th century, but also to develop an astonishingly effective military system. This was, of course, subsequently imitated with even greater success by the Ottoman Turks (see MAA 140, *Armies of the Ottoman Turks 1300–1774*).

Ajlun castle was built by one of Saladin's governors to defend the fertile highlands of north-west Jordan. The first small fortress was in traditional Arab style with four corner towers. Later towers and galleries date from early Ayyubid times.



Saljuqs and Fatimids

The Saljuqs of Rum

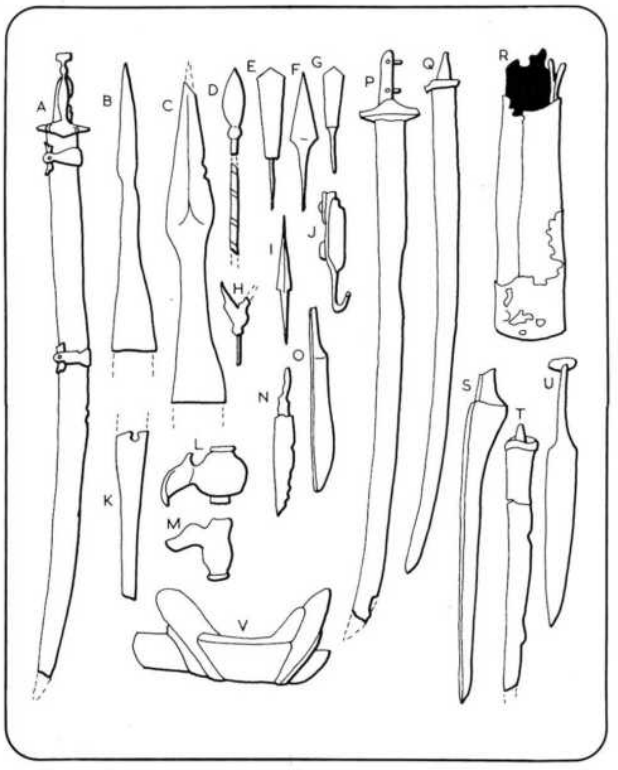
The first Muslim army to face the Christian invaders was that of the Saljuqs of Rum (Anatolia). Although defeated by the First Crusade, these Anatolian Turks subsequently blocked the overland route to Palestine, and thus starved the Crusader States of large-scale reinforcement.

Unlike previous conquerors, the Saljuqs brought with them from Central Asia entire Turcoman nomadic tribes who became a new and self-sufficient ethnic group within the Muslim world. These tribesmen formed the bulk of early Saljuq armies, and the effectiveness of their tactics is well recorded. Their arrows could carry a great distance, but also had exceptional penetrating power at shorter range. Unlike the later European longbow, the Turkish composite probably relied for its effect on more powerful and regular tension rather than

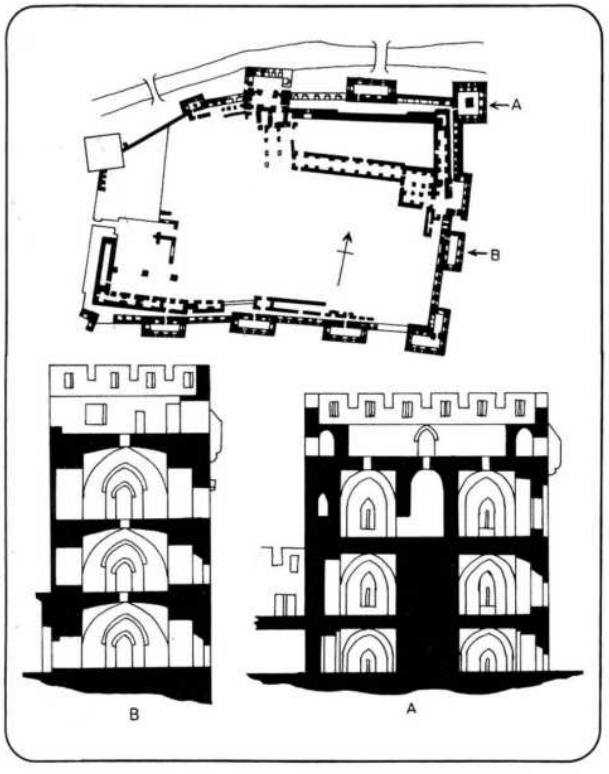
the weight of its arrow. The newer all-curve form of Saljuq weapon also gradually replaced the previous, angled form of composite bow in most Muslim regions during the 12th century.

Professional rather than tribal warriors played an increasingly important part in subsequent Saljuq armies, but their archery techniques were in some respects different and more varied. For example, such troops were trained in zone shooting, or the dropping of arrows within a designated area such as the interior of a castle. Their rate of shooting was also noted by all observers. Another feature of Saljuq archery in the late 11th and 12th centuries was the widespread use of a *nawak* or *majra* arrow-guide which shot high-velocity short arrows. These were possibly the 'darts' recorded at the battle of Dorylaeum in the *Gesta Francorum*.

Although horse-archery was very effective it rarely brought victory on its own. A final charge and close combat were normally needed, as would also be the case if the Turks were themselves defeated or trapped. Bows were then put aside, and maces, swords or spears were used.



Turcoman weapons: (*A-O*) 12th-century Pecheneg sabre, spearheads and butt, arrowheads, part of sword belt, whip-heads and knives; (*P-U*) 13th–14th-century sabres, quiver and daggers from Kazakhstan; (*V*) 10th–13th-century Bashkir wood-framed saddle from southern Urals.



The Citadel of Damascus (with sectional views of square and rectangular towers) was based on Roman and early Islamic foundations. This great fortress was rebuilt by the Ayyubid al Malik al 'Adil around 1209. It is entered through a massive barbican in the middle of the north wall, overlooking the Barada river.

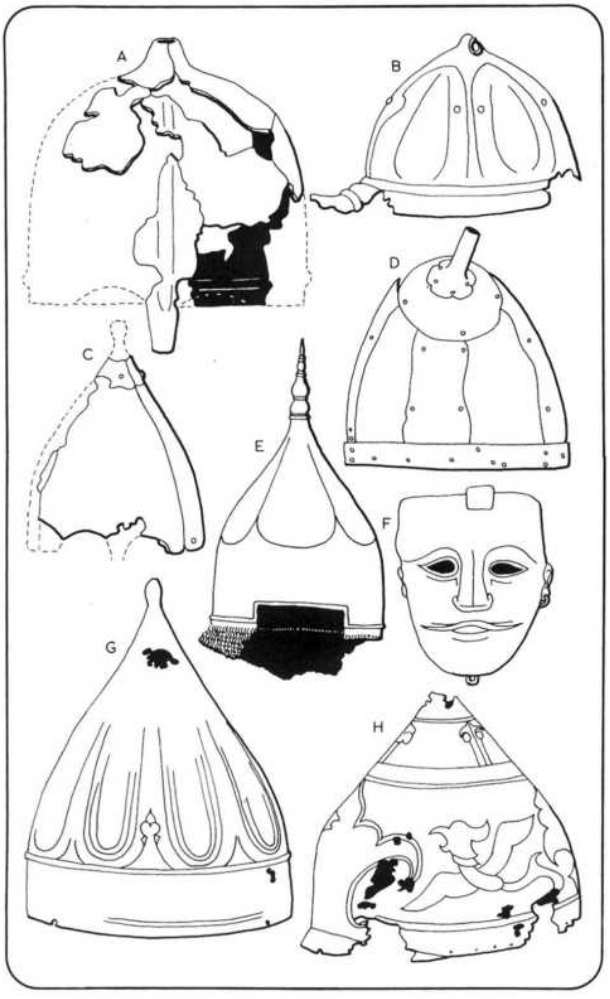
By the time the First Crusade reached the Middle East, the nomadic Turcoman tribes had mostly been relegated to frontier zones by the Great Saljuq Sultans of Iran because of their political unreliability. In such regions, which originally included Rum (Anatolia) and the Taurus Mountains, they continued to use their martial energies as *ghazis*, a name given to frontiersmen who fought to maintain or extend Muslim control. This they did with or without authorisation from a central government, in a life of raid and counter-raid comparable to that of America's frontiersmen in the 18th and 19th centuries.

The states established by the Saljuqs of Rum and their rivals, the Danishmandids of eastern Anatolia, were originally Turcoman *ghazi* provinces. Soon, however, the Saljuqs of Rum threw off allegiance to the Great Saljuqs, and established a dynasty of their own which outlived that of their Iranian cousins. They in turn then tried to push the Turcomans into

a troubled frontier belt between themselves and Byzantine territory, meanwhile building a professional army similar to that of other Middle Eastern states. In later years the Saljuqs of Rum fielded an army consisting of two parts, one of which was known as the 'Old Army'. This was, in fact, the traditional or original army which itself had two main parts, the warrior shepherds from the Turcoman tribes and the professional *ghulams* of slave origin.

Unlike the situation in other Middle Eastern armies, the Turcomans remained the more important element throughout the 12th century.

Helmets: (*A*) 10th–11th-century from southern Urals, perhaps of Muslim origin; (*B*) 12th-century Pecheneg; (*C*) 13th–14th-century Kuban from northern Caucasus (State Hist. Mus., Moscow); (*D*) 12th–13th-century Khirgiz Turkish; (*E* & *F*) 12th–13th-century Qipchaq with detachable visor (State Hist. Mus., Moscow); (*G*) late 13th–early 14th-century Mamluk (Porte de Hal Mus., Brussels); (*H*) 12th-century Kuman, of Muslim origin (Archaeol. Mus., Budapest).



Fierce and skilful as they were, they lacked discipline and were hard to control. Their contingents appear to have been organised on a tribal basis, individual warriors being rewarded by booty and money from their tribal *begs* who in turn expected gifts and payment directly from the Sultan.

The *ghulams* formed a ruler's standing army and, like earlier Muslim *ghulam* forces, were recruited from purchased slaves or prisoners of war. Such a manpower pool was naturally abundant in Anatolia as Byzantium retreated, Greek *ghulams* being particularly numerous in the second half of the 12th century after the battle of Myriokephalon. A small élite force of court *ghulams* acted as the ruler's bodyguard and trusted aides, while the normal *ghulaman-i khass* belonged either to the ruler or to senior military leaders, princes and generals. Their numbers reached a maximum of some 10,000 by the close of the 12th century.

A third element of the army was more varied and, in the 12th century, of lesser importance. This included *igdish* forces recruited from the offspring of mixed Turkish and Christian marriages who, under their *igdishbashis*, often acted as a kind of police force in the major towns. Then there were mercenaries, local militias, and the remnants of a Byzantine military aristocracy which had defected to the Saljuqs following the Byzantine collapse. Infantry, skilled in the guerrilla and siege warfare of Bithynia and the other mountainous frontiers, were probably eagerly recruited. Greek mercenaries were also apparently employed, as were Georgians. Some of these were infantry using heavy javelins. Others were horsemen armed with bow and lasso in Turkish style; but most seem to have been armoured, spear- and sword-armed horsemen fighting in the same Middle Eastern tradition as their Iranian, Kurdish and Arab neighbours.

After the confusion caused by the First Crusade and the subsequent establishment of relatively fixed frontiers between the Saljuqs of Rum and their Christian neighbours, Western European cavalry and infantry soon appeared in Saljuq service. Unlike Europeans fighting for Muslim rulers in Syria or Egypt these men were not normally regarded as renegades by their Christian co-religionists. Included among them were Crusader PoWs, many having been released from Syrian

imprisonment during inter-Muslim wars, and Italian crossbowmen.

Saljuqs and Atabegs

The Turcomans of Iran and the Fertile Crescent enjoyed an even briefer era of military supremacy than those of Anatolia. The Great Saljuqs' huge realm started to fragment well before the Crusaders appeared, and although this dynasty retained control of parts of Iran and Iraq until the late 12th century, most areas fell to successor dynasties. These, however, generally continued in the Saljuq military tradition by dividing their armed forces into a professional *askar* of *ghulams* plus mercenaries and a tribal, mostly Turcoman, auxiliary element. Under this system the *askar* formed a small standing army of cavalry and infantry, garrison troops and personal guards, while the auxiliaries were summoned only for specific campaigns. The best description of late 11th or early 12th century Saljuq equipment is to be found in the *Warqa wa Gulshah* romance. Here weapons include javelin, spear, sword, bow, mace and lasso. Armour is relatively heavy, comprising helmet, coif or aventail and full hauberk.

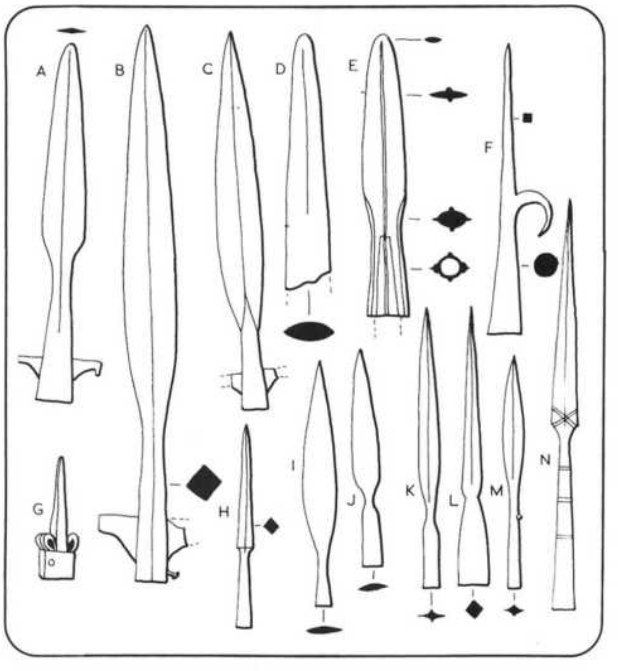
It probably required five horses per warrior to maintain prolonged hit-and-run tactics in Turcoman tribal fashion. *Ghulam* tactics needed fewer horses as well as less effort from each mount, which could thus carry a more heavily armoured rider. This made the *ghulam* a more versatile warrior than the Turcoman, while also imposing fewer logistical demands during long-distance campaigns in arid regions. *Ghulams* could, of course, shoot on the move, but they normally shot while their horses stood still, drawn up in disciplined ranks. A fully trained man was expected to loose a handful of up to five arrows in two and a half seconds. A further handful of five would then be snatched from an open-topped quiver. An enemy horseman approaching at 35 kph would therefore face five arrows during the final 30 yards of his charge. An unpracticed but trained *ghulam* could probably loose one or two arrows in a similar time (whereas the English longbowman at Agincourt is estimated to have shot only 12 times per minute).

Such skills required constant practice and physical fitness. A *ghulam* was, of course, also expected to be skilful with spear and sword or mace. A ruler therefore preferred professional recruits of slave origin even above free-born professionals. Once such *ghulams* became a politically powerful 'praetorian guard' they probably neglected their training and, when standing to face a Crusader charge, were consequently ridden down. As Turkish arrows normally penetrated existing armour at even moderate range, an inadequate rate of shooting seems the most obvious reason for their failure against the First Crusade.

Of all those *atabeg* or 'senior officer' states which inherited so much of the crumbling Great Saljuq empire, that of the 12th and 13th century Zangids in Syria and the Jazirah was perhaps the most active. In the history of the Crusades names such as Imad al Din Zangi and Nur al Din Mahmud loom large. But these Zangid rulers had to recruit from a more limited area than had their predecessors. The same may be said of the Burid and Artuqid rulers of Damascus and the Diyarbakr region. This was certainly reflected in their armies.

In 1126 a force from Damascus used the old Abbasid tactic of having each cavalryman carry a foot soldier into battle on his horse's crupper. Some

Weapons and other equipment from late 10th–early 11th-century Muslim shipwreck: (*A–C*) spears; (*D*) glaive(?); (*E*) heavy pole-weapon, perhaps for cutting rigging; (*F*) boathook; (*G*) spear butt(?); (*H–N*) javelins. It should be emphasised that no arrowheads were found in this probably Fatimid ship. (Castle Mus., Bodrum)

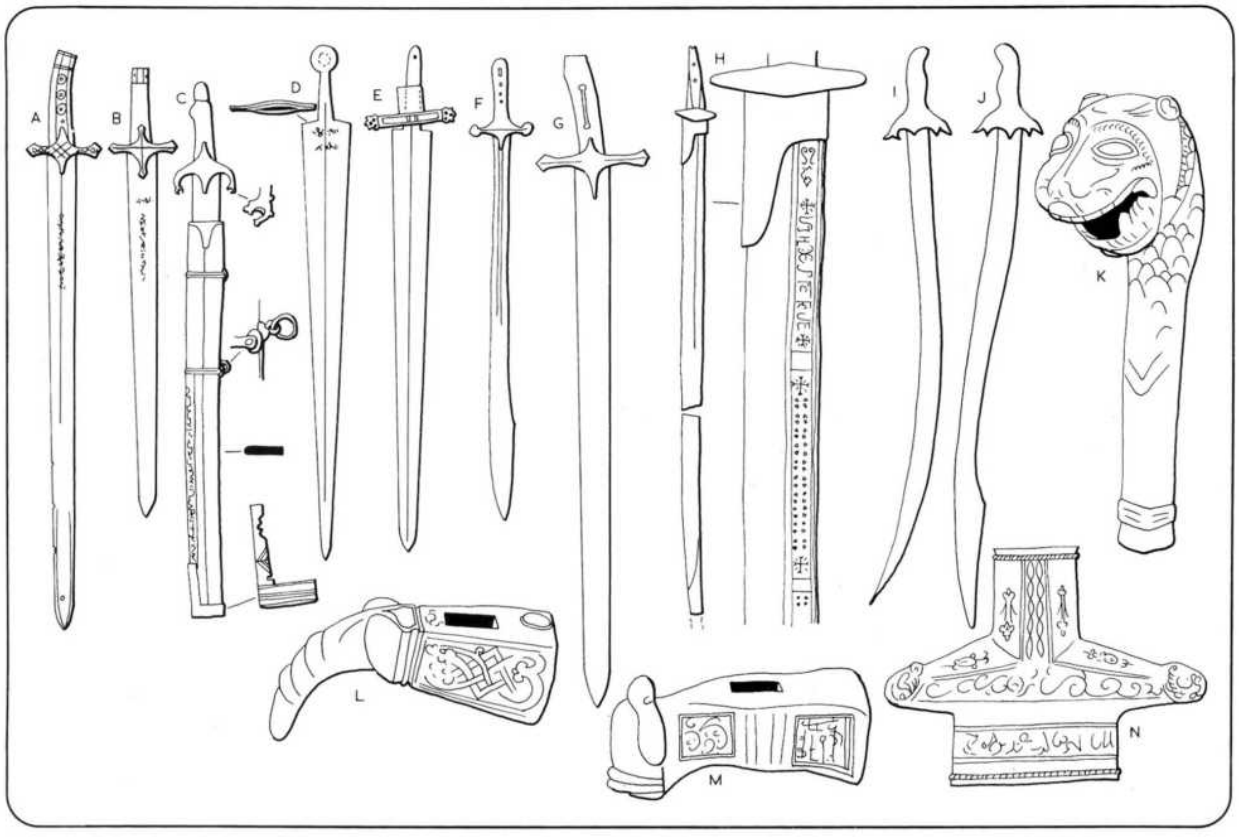


decades later the army of Nur al Din seems largely to have consisted of Turcomans and Kurds, horse-archers and spear-armed cavalry respectively, plus traditionally trained *ghulams*. Large numbers of auxiliary cavalry were also recruited from the Arab bedouin. Many Turcomans, such as those of the Yaruqi tribe who were invited to the Aleppo region in the mid-1120s, could similarly be regarded as auxiliaries. At this time most Turcoman tribes were to a large degree outside Muslim civilisation, though living within the world of Islam. They retained a separate legal system—the *yasa*, based upon tribal custom—which was not officially abandoned until Nur al Din obliged his military élite to adhere to Muslim law. Such a situation naturally helped to maintain the Turcomans' separate identity even in military matters.

Certain Turcoman tactics persisted even in the minor *askars* of the Fertile Crescent. When facing regular armies not comparably trained to use nomadic horse-archery techniques, this meant harassment of the foe until he was so disorganised that a decisive charge could conclude the struggle. The Zangids and others used this tactic against the Crusaders, though they were also prepared to meet their foes in a set-piece battle of organised ranks and, of course, to engage in siege warfare. Another tactical change that might betray Turkish influence was the placing of cavalry ahead of infantry, instead of behind it, as an army marched through hostile territory.

As far as the general equipment of *atabeg* cavalry was concerned, literary sources tend to emphasise surviving Arab and perhaps Kurdish fashions.

(*A*) Sword of unnamed Abbasid Caliph, 13th-century Iraq or Egypt (Topkapi Armoury, Istanbul); (*B–C*) swords of Caliph al Mustasim, 1242–1258 (Topkapi Armoury, Istanbul); (*D*) sword of unnamed 13th–early 14th-century Egyptian ruler, probably captured from Europeans (Askeri Mus., Istanbul); (*E*) supposed sword of Saladin, late 13th-century Egypt (Askeri Mus., Istanbul); (*F*) late 13th–14th-century Mamluk sabre (Topkapi Armoury, Istanbul); (*G*) late 13th-century Iranian sword (Topkapi Armoury, Istanbul). Note that almost all these Istanbul swords have later Mamluk hilts. (*H*) 12th–13th-century Armenian sabre found in northern Urals (Archaeol. Inst. Acad. of Sciences, Leningrad); (*I–J*) late 13th–early 14th-century Turkish sabres (Bey Koyunoglu Coll. Konya); (*K*) 12th–13th-century Iranian mace-head (Heeramaneck Gall., New York); (*L–M*) 11th–13th-century Iranian bronze war-hammers (Keir Coll., London); (*N*) 13th–14th-century Iranian gilded quillons (City Art Mus., St Louis).



Huntsmen on the frontispiece of a mid-13th-century manuscript from Mosul. The helmeted central rider carries a quiver on his left hip, the rider on the left carries a bowcase. (*Kitab al Diryaq*, Cod. A.F.10, Nat. Bib., Vienna)

There is greater mention of swords, turbans, helmets and spears than of bows. Such a traditional character was certainly true of Arab-dominated areas like Shayzar in the early and mid-12th century. In his memoirs, centred upon the castle of Shayzar, Usamah ibn Munqidh listed a horseman's equipment as a *kazaghand* fabric-covered and padded mail hauberk, a heavy helmet, sword, spear and large round shield. The primary importance of the spear is constantly emphasised, with several pages being devoted to notable lance-thrusts. Usamah also stated that a horseman particularly feared to turn his back on a foe armed with a spear, while cavalry armed only with swords preferred not to engage those bearing lances. He further indicated that the European couched lance technique was known, though not widely used, by the Muslims.

During this same period there was a revival of infantry in those Muslim states opposing the Crusades; yet this was not a result of European influence. Rather was it a reversion to Abbasid, Fatimid and Byzantine tradition as the nomadic tribes of Turcoman horse-archers were relegated to Anatolia and other northern frontiers. The Zangids of the Jazirah employed large numbers of infantry archers, crossbowmen, siege engineers, *naffatin* fire-throwers, and heavy infantry armed with long shields, spears or pikes. Among those specialising in siege warfare Khurasanis from north-eastern Iran and men from Aleppo were particularly renowned. When Nur al Din chose to face his enemies in open set-piece battle, foot soldiers seem to have fought in a traditional manner, co-operating with their cavalry as in earlier centuries. Infantry armed with either swords, large round shields, heavy spears, naptha grenades, daggers, mail hauberks and helmets, often with face-protecting aventails, are all mentioned in Usamah's memoirs. In fact such troops probably served in most armies of the area.

Not all paid warriors were, of course, Muslims. Armenians seemed prepared to fight for anybody,

Carved wooden panel from the Fatimid Caliph's palace, 11th–12th century. (Mus. of Islamic Art, Cairo)

serving Nur al Din in Syria, the Munqidhites of Shayzar, the Crusader states, Fatimid Egypt and the Saljuqs of Rum. Their equipment reflected the influence of these varied employers as well as traditional Byzantine and earlier Islamic styles. Sword, mace, spear and above all the javelin were the prefered weapons, particularly of Armenian horsemen.

Nur al Din's army may be taken as a typical *atabeg* force. It was not large, the ruler's *askar* ranging from 1,000 men when the young Nur al Din controlled only Aleppo, to 3,000 by the end of his reign. By then some 10,000 to 15,000 warriors from regional forces could also be added. The *askar* was divided into *tulbs* (sections) of 70 to 200 men whose heavier weapons, stored in the government *zardkhanah* (arsenal), were only distributed at the start of a campaign. Many regional troops held an *iqta* (fief), the size of which could vary considerably. These were not owned by the holder but could be issued and recalled at government discretion via the *diwan al jaysh* (army ministry). Other professional cavalry, Turk or Kurd, received salaries and were expected to appear with a certain minimum of equipment, horses, mules or camels for transport, and a squire. Professional infantry were similarly paid by the government.

A trusted *amir* (officer) was placed in charge of the *atlab al mira* (supply train), though in general the soldiers were expected to look after themselves, assisted by merchants who habitually followed the army with their mobile market, the *suq al askar*. Other camp followers included religious leaders and teachers, judges, scribes, interpreters and surgeons. In addition to auxiliary tribal cavalry, the irregular troops included large numbers of *muttawi'ah* short-term volunteers and full-time *ghazis*, both motivated by religious enthusiasm.

The tactics of Nur al Din's army were similar to those of the Great Saljuqs but were normally more cautious, often relying on long-range skirmishing archery because of the lack of sufficient fully trained *ghulams*. On the march the army was preceded by a screen of scouts. Next came an advance guard, which was also responsible for finding suitable camp-sites. The baggage-train normally marched ahead of the main force, while any animal herds would follow; a rearguard was rarely considered necessary. The army was expected to cover some 30 km in a day. Camps were based upon a circular pattern with the commander's tent at the centre. Either a trench would be dug around the camp, or spiked 'crow's feet' would be scattered to hamper an enemy attack. Advance posts called *yazak* took up positions further out, and if a foe was nearby a unit of *kararíyah* (shock-troops) would stand ready in that direction.

This basic system was not only used by Saladin but was subsequently refined and developed by all his successors.

The Later Fatimids

The size of Fatimid armies in the late 11th and 12th centuries remained relatively small. A loss of Berber territories in North Africa and the drying up of eastern recruitment following the Saljuq conquests meant a serious decrease in available military manpower. This could not easily be overcome by increased enlistment of Armenians and black African slaves, nor by the encouragement of *ahdath* urban militias or the militarisation of the Egyptian *hawwalah* labour corps. It was partly this shortage that led the Fatimids to rely so heavily on naval power. Such a strategy enabled them to transfer small numbers of well-equipped troops to threatened areas at relatively short notice. Their empire, unlike that of the Great Saljuqs, consisted largely of provinces with lengthy coastlines.

Fatimid palace troops, equivalent to a Saljuq *askar*, were said to total 30,000 to 50,000 Armenians and Sudanese at the time of Saladin's takeover, but in reality the numbers were probably far smaller.

Even at the height of Fatimid power in the 10th century it never went above 50,000 including full-time troops in all garrisons. A major expedition might be expected to number around 10,000 regulars plus a few thousand auxiliaries.

A more reliable source dating from around the year 1000 refers to 300 black slaves with silvered weapons of the Caliph's personal bodyguard, some 500 armoured warriors attending the chief vizier, followed by around 4,000 infantry of various nationalities and 3,000 equally mixed horsemen. These soldiers were taking part in an important Cairo parade, and probably represented the bulk of the palace troops. Smaller forces would have been stationed in all major cities and frontier regions.

Fatimid armies always contained a high proportion of infantry. In battle these were arrayed by national origin, with armoured men in the front rank. In defence they would make a shield-wall and use their spears as pikes while archers and javelin-throwers supported them. In attack the infantry would either advance en masse or send forward selected sections of the line, cavalry covering the flanks of such moves. In other words, Fatimid tactics were those of earlier pre-Turkish Muslim armies. Their equipment was similarly traditional, consisting of large round or kite-shaped and flat-based shields, javelins, bows, swords, pikes, and various obscure hafted weapons which might have approximated to later European glaives or bills.

Daylamite infantry, originally from northern Iran, had long served the Fatimids. Their weapons were *zhupin* double-ended javelins, battle-axes and tall kite-shaped *tariqah* shields. Some were also employed as fire-grenade throwers, while in the 12th century their officers appear to have carried curved swords of Turco-Iranian form.

More numerous were black African troops of both free and slave origin. Their loyalty and spectacular appearance probably led the Fatimids to choose them as guard units, as others had done before. Whether or not the dark-skinned infantry

Mid-12th-century paper fragment from Cairo showing Fatimid warriors emerging, perhaps from Asqalan, to fight European invaders. The horsemen of both armies wear long mail hauberks. (Dept. of Oriental Antiq., British Mus., London)

Inlaid brass priting box showing 'Scoppio' wearing a mail hauberk, from Mosul AD 1200–1250. (Franhs Bequest, British Mus., London)

archers and javelin men met by the Crusaders outside Asqalan in 1099 were Sudanese slave troops, Nubians or Ethiopian mercenaries is unclear. Information about such warriors in their original homelands indicates that most fought with large leather shields, short spears, javelins or long pikes, and wore protective, perhaps quilted, garments. Those close to the Red Sea and to Asiatic influence included archers with simple longbows.

Armenians also played a prominent rôle in Egypt. Following the Byzantine occupation of Armenia early in the 11th century a great many soldiers, probably including members of the military aristocracy, migrated to Egypt. There they formed an important military contingent best known for its infantry archers. After their leader, the Muslim Armenian Badr al Jamali, became vizier in 1074 even larger numbers migrated to Egypt. This was also encouraged by Badr al Jamali's son al Afdal, who was vizier when the First Crusade arrived. Subsequently further warriors fled from the newly independent Armenian state in Cilicia following Crusader efforts to occupy this kingdom early in the 12th century.

Troops of European origin played a minor rôle in Fatimid forces. They included the *saqalibah* (slaves of supposed Slav ancestry) as well as mercenaries, most of whom seem to have been Italian infantry or marines.

Egyptian militia forces are more obscure. The *jund misr* or 'Cairo army' re-appeared at the end of the Fatimid period, and might have referred either to a city militia, to retired troops, or to the civilianised descendants of earlier military families. Properly organised and armed *ahdath* militias, perhaps also remnants of earlier Arab *jund* structures, had previously been encouraged by the Fatimids in Syria, and these continued to play an important rôle in defending their cities against Crusader attack. Although the *ahdath* does not appear in Egypt, unpaid religiously motiviated *muttawi'ah* volunteers did.

Fatimid cavalry were as mixed as the infantry. Berbers had originally been numerous, but by the 12th century only the *Barqiyah* from what is now eastern Libya still had prominence. A small force of Turkish *ghulams* of Central Asian origin probably formed an élite cavalry unit, whereas the bulk of Fatimid 'Turks' seem to have been the freeborn descendants of earlier *ghulams*. These were most effective in co-operation with Armenian infantry. The 11th century had seen a general increase in Fatimid cavalry armour, and even the adoption of horse-armour. This probably contributed to the abandonment of the javelin as a cavalry weapon. The equipment of the last, and perhaps most thoroughly armoured, Fatimid cavalry was listed in a poem by the vizier al Tal'ai as mail hauberks, quilted or fabric-covered mail *jubbahs*, swords and long lances.

Bedouin warriors had long been enlisted by the Fatimids as fast-moving light cavalry auxiliaries. Arabs seem to have been effective and well trained, though lightly armed with spears, and were used to garrison whole provinces in sub-desert regions. Nevertheless, their numbers always appear to have been small.

The training of Fatimid regular troops was as traditional as their tactics, but largely seems to have involved the cavalry. It was based upon *hujras*, military schools in or around the palace. Here recruits were placed under the authority of an *ustadh* in one of a series of dormitories, each of which had a suitably warlike name. Training in archery,

lanceplay, swordsmanship, horsemanship and other military arts took from three to seven years. In the 11th century administrative skills still loomed large but, after a series of defeats at the hands of the Crusaders, the vizier al Afdal placed greater emphasis on purely military training. He also opened a further seven *hujras* to admit 3,000 sons of existing soldiers. By the end of the Fatimid era graduates of these schools formed two distinct cavalry regiments, the Greater and Lesser *Hujariyah*, supposedly numbering up to 5,000 men.

Most Fatimid troops were paid monthly in cash by the *diwan rawatib*, a department of the army ministry. But the *iqta* system of land grants was increasingly used during the 12th century, these being allocated by another section of the ministry. Large *iqtas* often went to tribal magnates who were in turn expected to supply a certain number of troops, while *iqtas* of lesser value along the desert fringe went to bedouin tribes. The series of appalling plagues which greatly reduced Egypt's population in the 11th century had forced many land-holding soldiers to till their own fields, thus effectively removing them from the country's fighting strength. Economic crises also forced the government to increase taxation to pay for the army, which still periodically rebelled over arrears of pay.

Pay naturally reflected rank, and Fatimid forces had four main grades of seniority. *Qaids* and three ranks of *amir* all wore distinctive uniforms and were headed by the *amir al juyush* or commander-in-chief. Before the arrival of the Crusades this officer had also been personally responsible for the Syrian garrisons. After the Saljuqs seized Damascus the bulk of the Fatimid armies was stationed in the Syrian ports, and these remained vital even after the establishment of the Crusader states. Asqalan, the last to remain under Fatimid control, was always strongly garrisoned, being the key to the defence of Egypt. Aswan in southern Egypt was important for similar reasons.

On the march a Fatimid army resembled those of the Saljuq or Atabeg states, with scouts and raiders preceding the main body and trenches being dug to protect a camp. Mules and Bukhti camels served as beasts of burden, the latter being a cross between the Arabian and Khurasani breeds.

'Christ before the High Priest', Syriac Gospel from the Jazirah region, *c.*AD 1220. The guards wear both mail and lamellar armour. (Ms. Add. 7170, British Lib., London)

Saladin and the Ayyubids

Saladin first became prominent as Nur al Din's governor in Egypt. With the death of the last Fatimid Caliph in 1171 he not only changed the official faith of the country from *Shi'a* to *Sunni* Islam, but also set about recruiting a new army loyal to himself rather than to the memory of the Fatimids or to Nur al Din. Such considerations led to Saladin recruiting from an even wider spectrum than was normal. He had inherited a Fatimid force that included several thousand Armenians, Sudanese and Arabs, both regular and auxiliary, plus the Kurdish cavalry *ghulams* and Turcomans brought to Egypt by Saladin's uncle during the initial Zangid occupation.

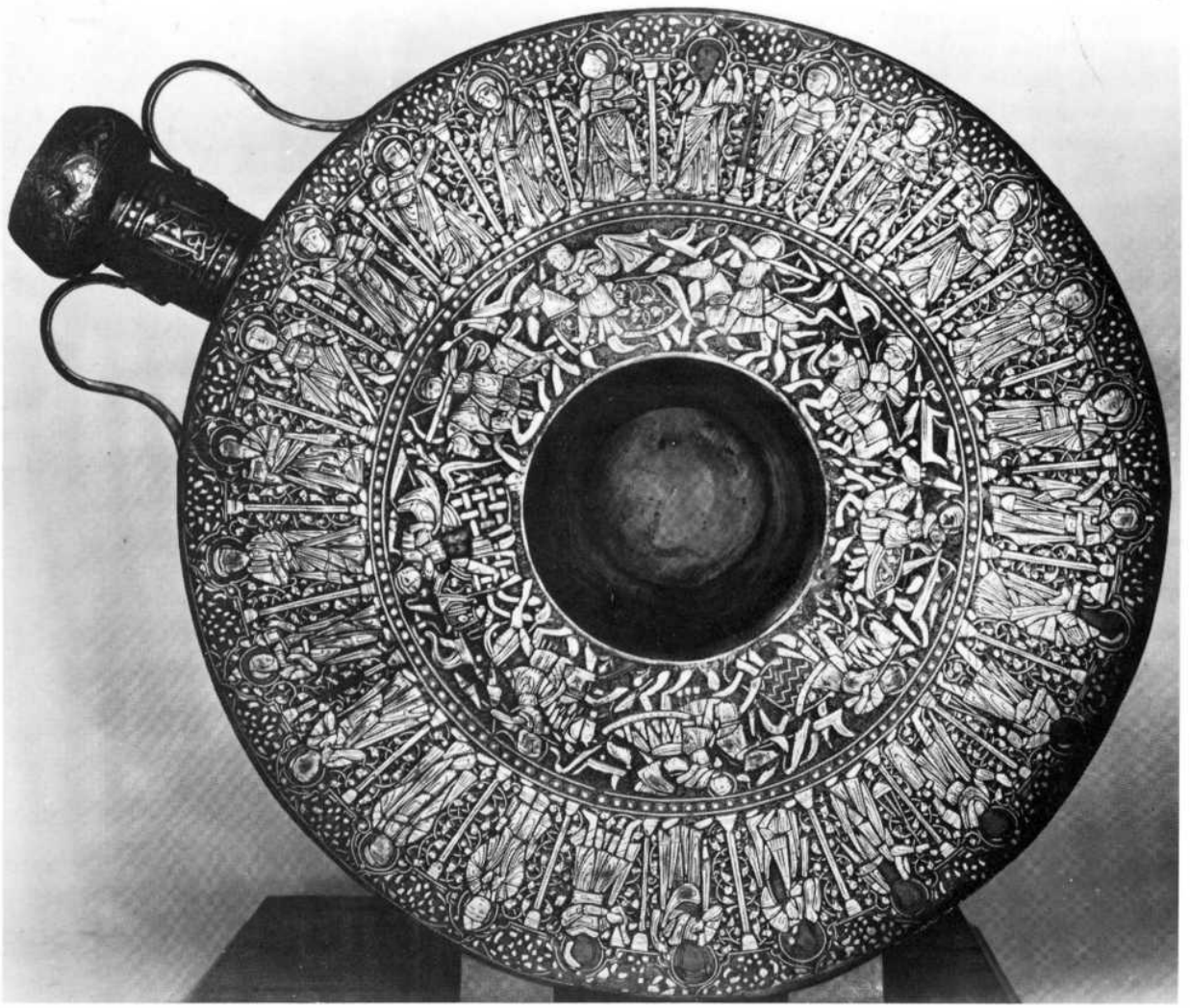
As his power grew, however, Saladin downgraded, disbanded or simply destroyed most of the Fatimid forces, while retaining those Zangid troops who were willing to be loyal to him rather than Nur al Din. He also continued to recruit increasing numbers of free Kurdish heavy cavalry, Turcoman

horse-archers and Turkish *ghulams*. As Saladin subsequently seized control of most of Syria and the Jazirah he also incorporated the mixed forces of these areas into his own loosely knit army, to which *ahdath* militias, *muttawi'ah* volunteers and Arab bedouin auxiliaries could also be added.

Crusader chroniclers tended to overemphasise the admittedly picturesque rôle of Turcoman horse-archers in the armies of Saladin and his Ayyubid successors. These troops seem, however, to have played a relatively minor rôle in the warfare of Egypt and the Fertile Crescent in the late 12th and early 13th centuries; in fact, they appear to have degenerated into one of two sources of auxiliary cavalry, the other being the bedouin. The most successful rôle for such Turcomans may now have been as raiding troops, riding ahead of an invasion force as they did during the reconquest of Palestine following the battle of Hattin in 1187.

The most effective horse-archers in Saladin's army were as always the more disciplined *ghulams* or, as they were now more commonly called, *mamluks*. They seem to have used their bows in much the same way as had long been traditional in the Middle East, though perhaps with a greater tendency to shoot on the move than at rest. This more cautious, skirmishing style of warfare was in line with a trend seen after the fragmentation of the Great Saljuq empire. Ayyubid rule was, however, to bring back a larger degree of stability to the region. Partly as a consequence *ghulam* training

Early 13th-century inlaid bronze bottle from the Jazirah area. It shows mounted warriors using lances and crossbows, with some horses protected by armour. (Freer Gall., Washington)



steadily improved, until by late Ayyubid times disciplined ranks of *mamluks* could halt a Crusader charge by archery alone. This happened at the battle of Gaza in 1244, and was a feat which had never before been achieved since the arrival of the First Crusade.

Armed head to foot, such *mamluks* could be sent ahead of each battalion as an advance guard of horse-archers. Others were trained to dismount and shoot at a foe while drawn up in ranks, to achieve greater range, concentration and accuracy. If unhorsed in battle they would continue to fight, first with bows and at the last with swords.

Such behaviour would be in line with training reflected in the Ayyubid military treatise of al Tarsusi and in later Mamluk *furusiya* cavalry manuals. Al Tarsusi, for example, advised a horse-archer to aim at the horse of an armoured foe, but to wait until an enemy cavalryman with a sword got very close before shooting, as one could not afford to miss with one's first shot. If, however, this mounted foe was charging with a lance or with a *nawak* arrow-guide and short arrow, the horse-archer should maintain his distance, or at least have sword and shield ready to defend himself. Generally speaking the foeman with a lance was considered the most dangerous and the one who should be dealt with first.

The equipment of Ayyubid cavalry appears to have been fairly standardised. A minority wore heavy lamellar armour over clothes which in all probability included or hid either *kazaghand* fabric-covered armour or a simple mail hauberk. Some horses ridden by lance-armed cavalry were also protected by bards and chamfrons. A few horse-archers even seem to have used crossbows.

Such variously equipped styles of cavalry, heavy or light, fought in close co-operation. *Shuj'an*, perhaps including the horse-archers and mounted crossbowmen, delivered controlled charges while their withdrawal was covered by an élite of armoured troopers known as *abtal*. This was an elaboration of earlier Arab *karr wa farr* repeated attack and withdrawal tactics which themselves perhaps reflected the Byzantine system of *cursores*, or shock-cavalry archers, supported by *defensores* to protect their flanks.

A great many Ayyubid heavy cavalry, excluding those from the ruler's own *mamluks*, seem to have been numbered among those contingents drawn from the Jazirah area. This was close to the homeland of the free Kurdish professional cavalry. During the siege of Acre, Mu'izz al Din of Sinjar, one of the surviving Zangid rulers of this region, led a cavalry force armed with long lances and swords, wearing full-length mail hauberks and perhaps segmented helmets with plumes or crests, but there is no mention of bows. Even Saladin's foes noticed that the cavalry of Taqi al Din, the sultan's nephew, were not horse-archers. On the other hand the *atabeg* Artuqids of Hasankayf in the northern Jazirah may have retained the horse-archery techniques of their Turcoman forebears. The art of this period clearly shows warriors and equipment as mixed as were the origins of the troops using it. Those armed with spear or sword could carry shields of purely Byzantine style, wear a variety of mail and lamellar armours, have their forefingers over the quillons of their swords in an Iranian style of fencing which would not reach most of Europe for a further hundred years, and also use their lances in many different ways.

Those of specifically Kurdish origin are, on at least one occasion, described as wearing hauberks and carrying large, very convex leather shields. Elsewhere the origins of Ayyubid cavalry are not made so specific, although their equipment is described in detail. The *kumah* 'veiled' horsemen,

'Baptistère de St Louis', Mamluk inlaid brass basin, *c.*AD 1300. The bending figure wears lamellar armour. (Louvre, Paris)

'The Betrayal', late 12th-century Coptic Gospel. Some of the soldiers carry flat-based *januwiyah* shields. (Ms. Copte 13, Bib. Nat., Paris)

perhaps with mail aventails across their faces, fought outside Acre with swords, maces and spears, and were clearly quite capable of unhorsing heavily armoured European knights.

It was rare for one minor incident and one named individual warrior to be recorded in both Muslim and Crusader chronicles. Yet this happened with the death of the Ayyubid champion Ayaz the Tall during the battle of Qaisariyah on 30 August 1191. Ayaz had earlier been described as fully armoured and when, during this battle, he was thrown from his horse he was struck down before being able to remount because of the weight of his iron armour. The rest of Ayaz's weaponry included a bow, quiver, sword and a spear that was heavy enough to be noted with astonishment by his European slayers. Comparable equipment including mace and sword was still used by Ayyubid *mamluk* regiments half a century later at the battle of Mansurah.

Ayyubid light cavalry weaponry was as varied as that of heavier troops, though naturally less abundant. Those men described as *jaridah* carried the lightest equipment, and were employed for rapid raids into enemy territory or to hold isolated outposts. Such troops were often Arab auxiliaries who, noted for their speed and manoeuvrability, were also very effective at ambushing enemy convoys. These warriors were described by their Crusader foes as despising armour on the grounds that it was an attempt to escape one's predestined day of death. Other comparable troops, Arab or Turcoman, were similarly lightly equipped and fought with bow, winged or knobbed mace, sword, dagger or light spear: indeed, light spears of bamboo were widely regarded as the typical weapon of the Arabs.

Infantry remained important under Saladin and the Ayyubids. They may, indeed, have increased now that Islam was on the offensive against a string of Crusader states that relied above all on the defences of their massive castles. Saladin's armies varied in their constitution, but at different times included Arab infantry and cavalry from the large Kinanah tribal federation, plus *asaqilah* (late of the Asqalan garrison) and other troops inherited from the Fatimid Caliphate. The Armenian troops that had formed such an important part of previous Egyptian armies disappeared after taking part in a pro-Fatimid uprising in 1169. The survivors of this rebellion probably migrated back to Cilician Armenia.

Junior *mamluks* were also trained to fight on foot as well as mounted. Meanwhile other tribal levies, local *jund* or *ahdath* militias from the Syrian cities, the

highly regarded siege engineers of Aleppo and Mosul, plus some comparable specialists from Khurasan, are all recorded.

Open battle with infantry facing infantry and cavalry facing cavalry was an issue that both Crusaders and Ayyubids now tended to avoid. Yet, according to al Tarsusi, Muslim soldiers were still trained to draw themselves up in ranks ahead of the cavalry and behind a wall of tall *januwiyah* or *tariqah* shields. Thereafter co-operation between horse and foot remained as it had been for centuries, except that the infantry could now add crossbows to their existing arsenal. Such tactics were clearly more than merely theoretical, and seem to have been used by Saladin's garrison at Acre during one major sortie.

Those Muslim archers and javelin-throwers who opened the battle of Arsuf in 1191 may have included trained professional infantry. Generally, however, the rôle of Ayyubid foot soldiers was limited to siege warfare. This could, of course, mean open battle during the siege or blockade of a fortified place. Eastern and western sources agree that the Muslim troops involved in such fighting varied greatly in their arms and armour, from lightly equipped *jaridah* warriors to heavily protected *thaqlah* infantry and dismounted, but still armoured, horsemen. Among the items of weaponry mentioned are swords, daggers, long-bladed axes, maces, javelins, crossbows, naptha grenades, naptha 'tubes' or flame-throwers, long and short spears, large round wooden shields, large and small leather shields and mail hauberks of various sizes. Large shields plus specialised mantlets were often used to build semi-permanent shield-walls in what virtually became trench warfare. Many of these same troops, including the ex-Fatimid Kinanah, continued to serve Saladin's Ayyubid successors. Their equipment and tactics underwent no radical change.

The armies of Islam also attracted troops from Christendom, both Orthodox and Catholic. Much the larger proportion would seem to have been infantry, and most would probably have been specialists—siege engineers, crossbowmen and the like. European cavalry also served in Ayyubid Syria, though they were regarded as renegades by the Crusaders.

More study has been made of the sizes of Saladin's armies than of most other medieval Muslim forces. Saladin apparently started with a personal *askar* of about 500 men, plus 3,000 Turcoman auxiliaries. By 1169 he could boast 8,640 regulars in his land forces. Sir Hamilton Gibb, analysing a review held in 1171 for visiting Byzantine and Crusader envoys, noted that by then 174 cavalry units (*tulbs*) were present while 20 were absent, perhaps on duty elsewhere. This could provide a total of some 14,000 professional cavalry plus a further 700 Arab horsemen of the Judham tribe. It is, however, not clear whether a *tulb* was a permanent or *ad hoc* unit, used in war or only on parade. This number was later cut down as ex-Fatimid troops were disbanded. At least half of such a force always remained in Egypt because of various invasion threats, even when Saladin led a major expedition out of the country. Contingents from Ayyubid or allied areas in Syria and the Jazirah tended to be small. Estimates indicate that Damascus supported 1,000 troops; Hims, 500; Hamah, plus subordinate castles such as Shayzar, 1,000; Aleppo, 1,000; Mosul and the Jazirah together, from 2,000 to 4,000. These, similarly,

'Joseph of Aramathea asks for the body of Jesus', from the same Coptic Gospel. The soldier is probably based on a late Fatimid warrior, perhaps of Armenian origin. (Ms. Copte 13, Bib. Nat., Paris).

could not all be sent on campaign at one time. At the battle of Hattin, for example, Saladin apparently led an army of only 12,000, mostly light cavalry, against a Crusader force of up to 18,000, mostly infantry.

The payment of Ayyubid troops was quite complicated. Among those with cash salaries Kurds, *mamluks* and free Turkish regulars received the maximum rate. Arabs of the Kinanah federation, who were originally from southern Palestine, the *asaqilah* and other former Fatimid troops received half this; naval troops, probably one quarter; and the remaining Arab auxiliaries, one eighth. Others were rewarded with an *iqta* or government fief. Saladin greatly extended the somewhat rudimentary Fatimid system of *iqtas*, firstly by transferring them from Fatimid troops to his own men, and then by creating more in other parts of the country. Some *iqtas* were also put aside to maintain the fleet and its personnel. The Ayyubid ranking system was a quite simple three tier system of *amirs*, *amir kabirs* and *amir al isfahsalar*.

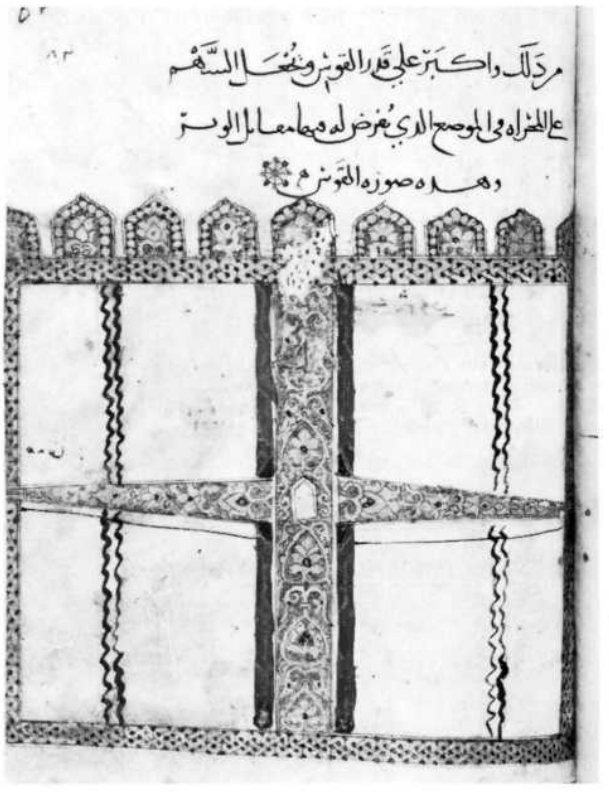
'Soldiers of the Caliph of Baghdad', in an early 13th-century manuscript from Baghdad. It shows Arabs, *ghulams* and a variety of types of banner. (*Maqamat* of al Hariri, Ms. Arabe 5847, Bib. Nat., Paris)

Above these field ranks were five or so specialised senior posts from garrison commander to army chief.

As had been the case in Saljuq, *atabeg* and Fatimid armies, Ayyubid regulars were only issued with arms and armour from the *zardkhanah* (arsenal) when an expedition was being prepared. Pay to cover their other campaign needs was issued at the same time. On the march heavy armour was normally kept with the baggage, only being put on when fighting was expected. During longer wars, particularly those campaigns extending over more than one season, a complicated and expensive rotation system between the forces of Egypt, Syria and the Jazirah was intended to keep one army in the field at all times.

Saladin also found that the old Arab *razzia* tradition of lightning raids deep into enemy territory in search of plunder was a useful means of supplementing military resources. Retaliatory raids into Nubia (1172–3), Libya and Tunisia (1173), against Jordanian bedouin (1173), and to Yemen (1174) were all in this tradition. The expedition to Yemen also had strategic and economic significance, reviving and strengthening an Egyptian influence that had been very close in Fatimid times. Yemen became part of the Ayyubid confederation, though the country's direct contribution to Saladin's military strength is not immediately obvious. The period of Ayyubid domination did leave its mark on Yemen's military organisation, and there are many references to professional cavalry in 12th century Yemen, but most local forces were still based upon tribes and cities. A small Turkish or Turcified élite seems to have settled in the country, and more sophisticated equipment also appeared.

Far more important might have been Yemen's contribution to Saladin's naval strength in the Red Sea. Southern and eastern Arabia had long been important centres of maritime trade with India, East Africa, Indonesia and even China. Now there were references to a powerful class of galley, carrying marines and possibly propelled by 140 oars or rowers, which was known as a *shayani*. The naval threat posed by the Crusader states, and even ultimately the danger of European penetration into Indian Ocean trade, was clearly demonstrated by Renaud de Châtillon's daring Red Sea raid of 1182.



The *ziyar* and its loading mechanism. This was a large mounted crossbow reinforced by a wooden frame with taut ropes giving added strength to the arms of the bow. The bolt emerged from a small 'gateway' in the centre of the weapon. From al Tarsusi's late 12th-century military treatise (Ms. Hunt. 264, Bodleian Lib., Oxford) See Plate C1.

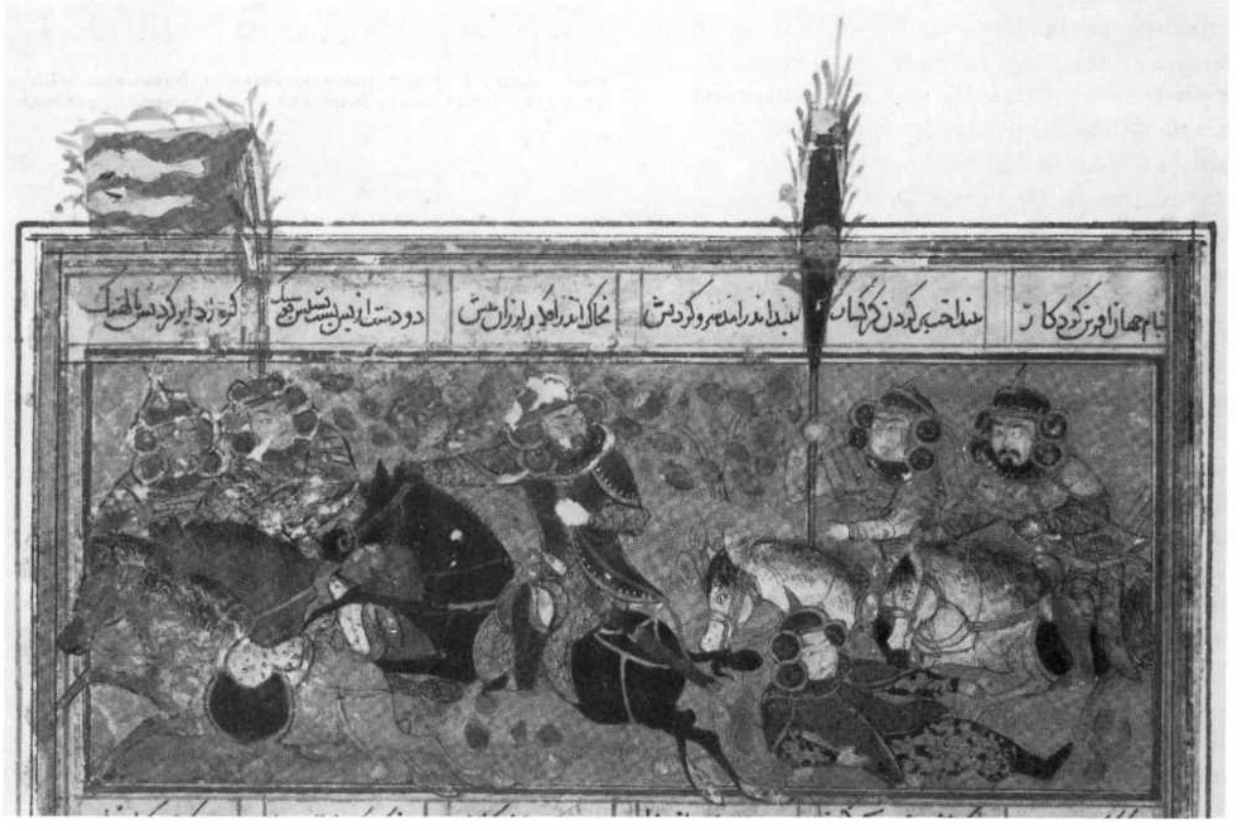
Disaster and Triumph

The Khwarazmshahs

Events in the eastern provinces of Islam had their impact on the Middle East even before the Mongols erupted on to the scene. This area saw a comparable decline in the importance of nomadic Turcoman horse-archery, particularly after the fragmentation of the Great Saljuq empire in the mid-12th century. In the Ghaznawid state of Afghanistan such troops had never been more than one element in a mixed army. The Ghurids who overthrew this latter dynasty in the second half of the 12th century were always famed more for their infantry than their cavalry. Their most original piece of equipment was the *karwah*, which seems to have been a very large shield of bullock hide stuffed with cotton which was carried into battle by the front rank of troops. It could also act like a shield-wall to surround an enemy who broke the Ghurid line.

Infantry continued to play a prominent rôle in Afghanistan and the Muslim part of northern India during the 13th century. Ex-Ghurid infantry were also recorded in the service of the Khwarazmshahs of Transoxania, appearing in the garrison of Samarqand when this city fell to the Mongols in 1220. The core of the Khwarazmshah's army was, however, formed of Turkish *mamluks* and nomadic but only superficially Muslim Turcoman warriors from the Qipchaq and Qanqali peoples. The Khwarazmian *mamluks* were notably more heavily armoured and rode equally protected horses, which is hardly surprising given the mineral wealth and long-standing arms-manufacturing fame of Transoxania. These warriors, plus their Qipchaq and Qanqali auxiliaries, were soon to fail against the Mongols; but in 1212 they succeeded in destroying the Buddhist Qara Khitai dynasty which had long been occupying much of Muslim Turkistan. The Qara Khitai, though Turks, have been regarded as a Chinese-influenced vanguard of the Mongol hordes that were soon to follow.

'Isfandiyar captures Gursar', in one of the so-called *Small Shahnamahs*; this group of Persian manuscripts is now thought to have been made in Baghdad around AD 1300. Some of the warriors wear distinctively Mongol equipment, including 'soft' armour of heavy felt, and helmets with circular ear-pieces. (Ms. 1948-12, Dept. of Oriental Antiq., British Mus., London)



The art of post-Mongol 13th-century Iran generally illustrated the traditional military equipment of this region. Only occasionally are the very different styles of the recently arrived Mongols portrayed. Warriors are generally shown within the Saljuq tradition, while more heavily armoured troops, particularly those wearing extensive mail hauberks, probably throw light on Khwarazmian equipment. If so, then one might say that the arms and armour of Islam's 13th-century central Asian frontier was a development of both Saljuq and earlier styles, grown heavier through long experience of warfare against increasingly powerful nomadic horse-archers.

In Iran and Iraq the long established local armaments industries did not learn to make new forms of Mongol-style arms and armour until the 14th century. Even when they did so, they also continued to manufacture traditional shields and other items of equipment for those local dynasties which survived under Mongol suzerainty. Nevertheless, in north-western Iran the presence of a new Mongol capital soon encouraged the expansion of an existing local industry. Sword-making became quite important, though it had been rudimentary prior to 1300.

12th-century Fatimid plate showing a huntsman with a straight sword hanging from a belt with decorative pendants. (Freer Gall., Washington)

13th-century Anatolia and the Caucasus

The Qipchaq nation which supplied so many troops to the Khwarazmshahs dominated the western Asian and Russian steppes from the mid-11th century until the Mongol conquest. During this period they sometimes seem to have been allied to the Christian kingdom of Georgia. The Qipchaqs were themselves very mixed, many being Muslim, some Christian and others still Shamanist. Perhaps this alliance lay behind the name 'Khwarazmian' that was given to the finest armours for man and horse in the late 12th- or early 13th-century Georgian epic, *The Man in the Panther's Skin.*

This epic tale dates from the time of Queen Tamara, when Georgia grew into a significant power directly involved in Middle Eastern military affairs. It describes a warrior élite that seems to have been equipped and to have fought in a traditional pre-Turkish fashion like that of the country's Iranian, Kurdish, Byzantine and Arab neighbours. Archery was a princely pastime and was more commonly used in hunting than in war. Armour consisted of both mail and lamellar, the lamellar *djavshan* clearly being comparable to the Muslim *jawsham*. Flexible shoulder and upper arm defences called *kap'hi* again corresponded to the Muslim *kaff*. Some warriors also wore helmets, coifs and leg defences. The most important weapons appear to have been lance and sword, with occasional mention of mace and lasso.

The other Christian nation to be directly involved in 13th-century Middle Eastern warfare was, of course, that of the Armenians. During the 12th and 13th centuries the heartland of Greater Armenia was under the domination of others, but the new kingdom of Lesser Armenia in Cilicia and the Taurus Mountains was at first organised along traditional lines. These were essentially feudal, as was the army of Lesser Armenia. A higher nobility of *nachararks* wielded an authority almost equal to that of the king, and their military obligations were

Early 12th-century large ceramic figure of a horseman fighting a dragon, from Raqqa, Syria. Note his straight sword, segmented helmet, and the decorations on his shield probably indicating a spiral cane-and-thread construction. (Nat. Mus., Damascus)

not clearly defined. Beneath them came the *azatk*, who held land in return for military service to a *nacharark*. Lowest of all were the serfs, who toiled in hereditary bondage and had no military obligation. In Cilicia this lowest class were not necessarily all Armenian.

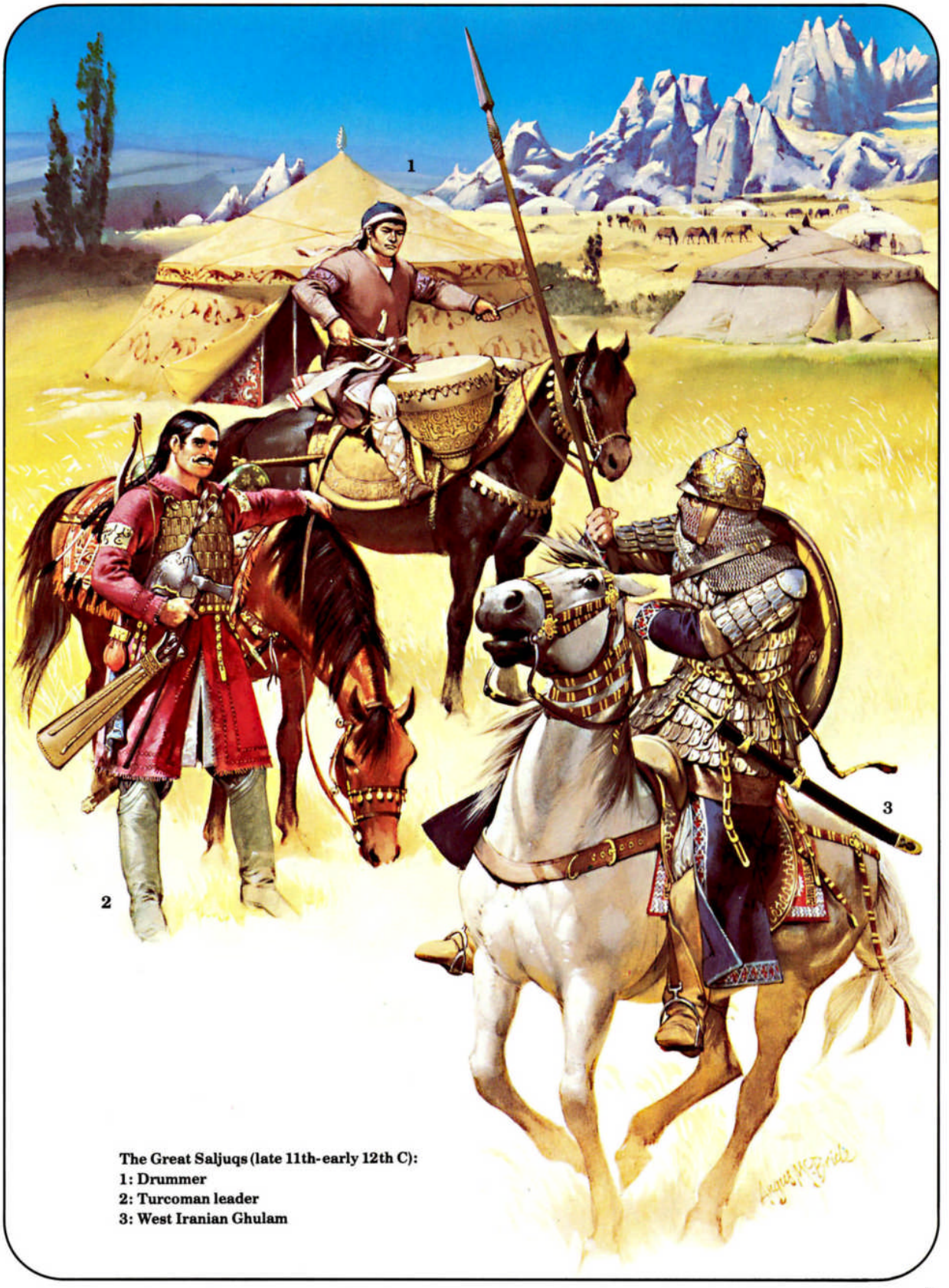
The massive migration from Cappadocia and Greater Armenia to Cilicia began in the early 1080s, and probably involved privileged classes who had lost status due to the Turkish conquest of Anatolia. They largely settled in the cities, while their military élite was also strong enough to seize many Taurus castles. Much of the previous Greek-Byzantine population of the area was then expelled. Armenians had, of course, long served in the armies of Byzantium, where they were regarded as good soldiers but politically unreliable. Many still served Byzantium, though their status and numbers steadily decreased throughout the late 11th and 12th centuries, the most active migrating to Cilicia and beyond.

Traditional Armenian arms and armour seem to be reflected in the great national epic, *David of Sassoun*. Here the warrior wears a padded helmet, a shirt of mail and a lamellar cuirass plus metal leg defences and a large shield. His weapons include sword, spear, bow and arrows, but primary importance goes to the mace. Constant reference to such weapons being thrown by horsemen, and even of a mace pinning a rider's leg to his saddle, seem to suggest that later transmitters of this oral tale might have been confusing the mace *gurz* with a heavy javelin known in Iran as a *guzar*. Javelin-combat between horsemen with blunted weapons is still a popular game in eastern Turkey, where it is known as *cerit*.

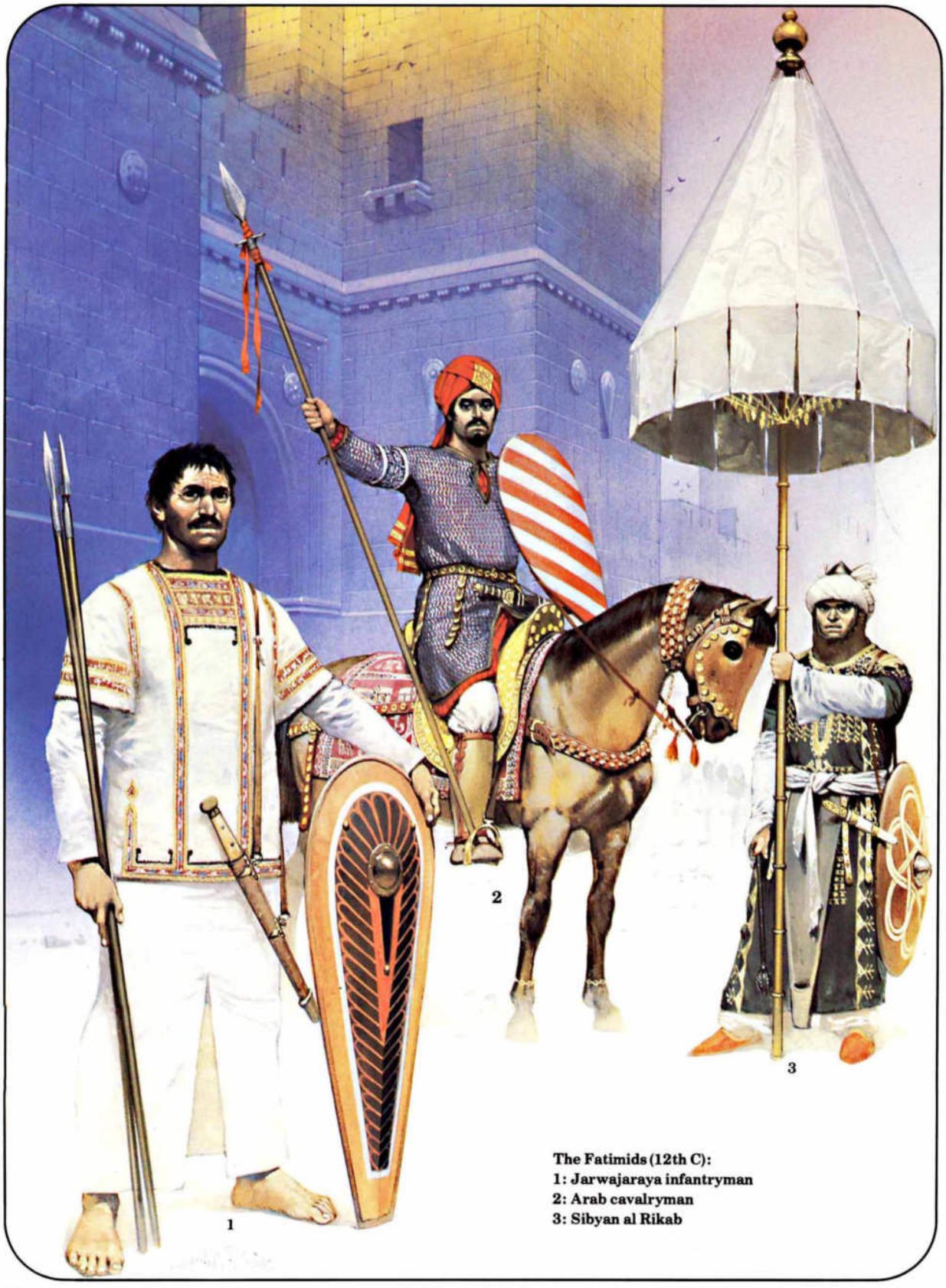
A list of leading barons attending the coronation of Leon II in 1198 mentioned 45 separate holdings. Others were absent from the ceremony, while further areas were part of the royal desmesne. Most of the same centres of feudal authority were still mentioned in lists from the early 14th century; nevertheless, Leon II was to introduce fundamental changes in Lesser Armenian military organisation. The *nachararks* lost much of their old autonomy, the names and functions of leaders were Latinised, and many aspects of the army structure were copied from the Crusader states, particularly from the principality of Antioch.

The old system might have been based upon an archaic warrior society, but the Armenians had clearly not been backward where the technical aspects of warfare were concerned. Their fortifications were large and impressive, if less scientifically planned than those of the Saljuqs and other Muslims. The Crusaders certainly employed Armenian siege engineers, one specialist named 'Havedic' (in Latinised form) designing machines used to attack Tyre in 1124. By 1296, however, Marco Polo suggested that Armenian prowess had sadly declined, stating that whereas at one time they were worth five of any other nation they were now slavish men given to gluttony and drinking. Nevertheless, the Cilician kingdom of Lesser Armenia outlived the Crusader states in Palestine and Syria by 72 years.

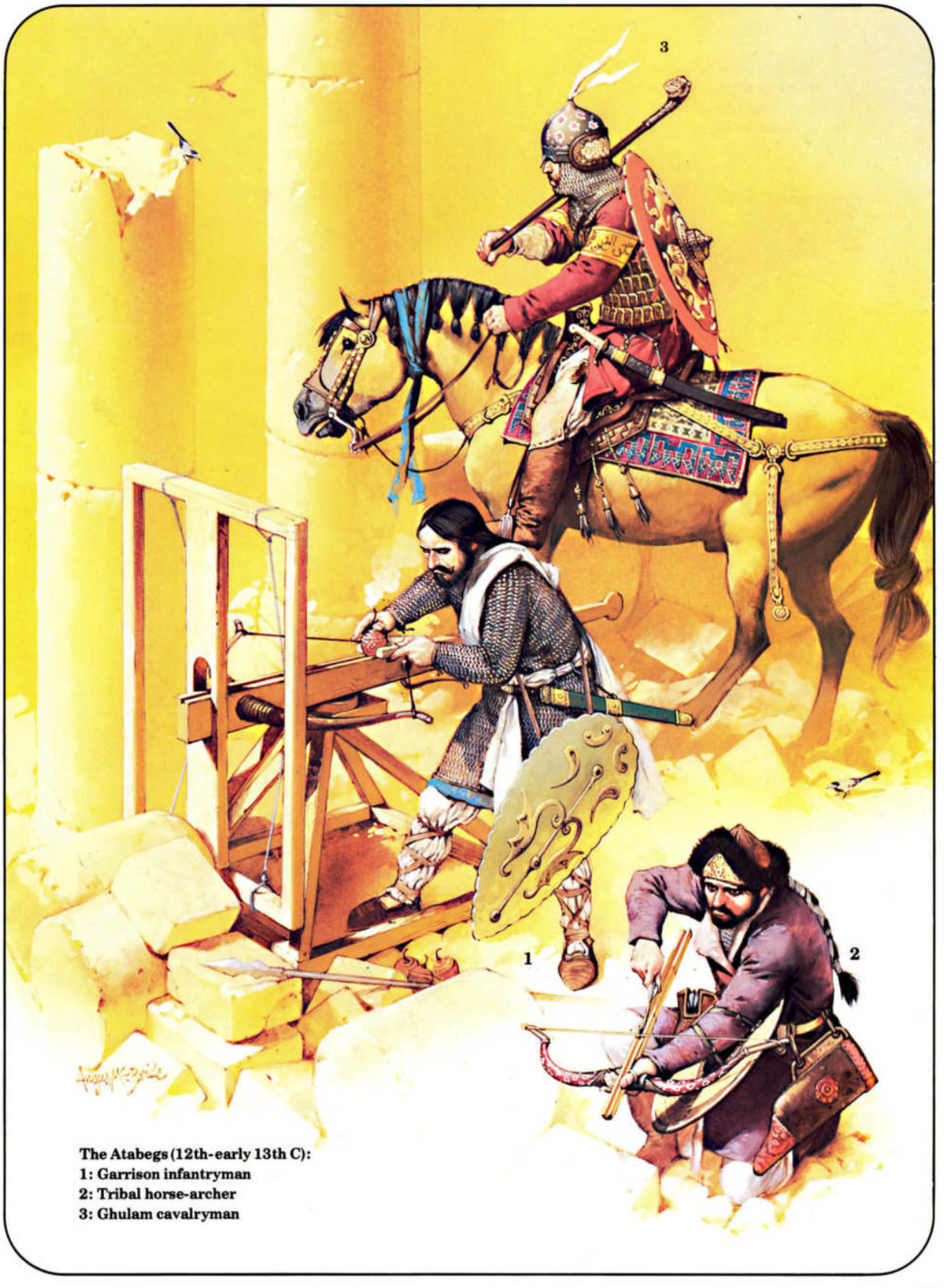
The main military power in this region before the coming of the Mongols was the Saljuqs of Rum. But



The Great Saljuqs (late 11th-early 12th C):
1: Drummer
2: Turcoman leader
3: West Iranian Ghulam



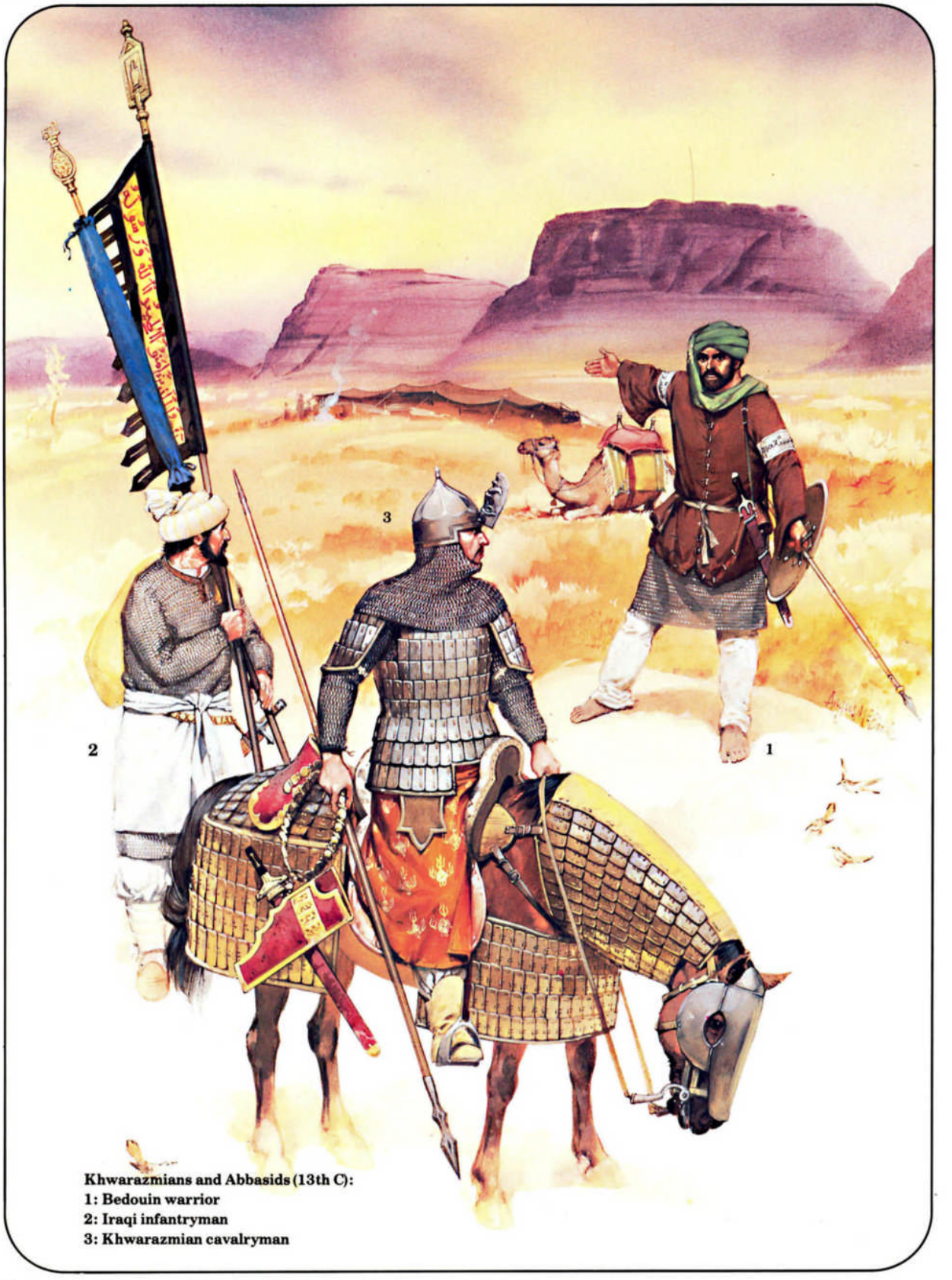
The Fatimids (12th C):
1: Jarwajaraya infantryman
2: Arab cavalryman
3: Sibyan al Rikab



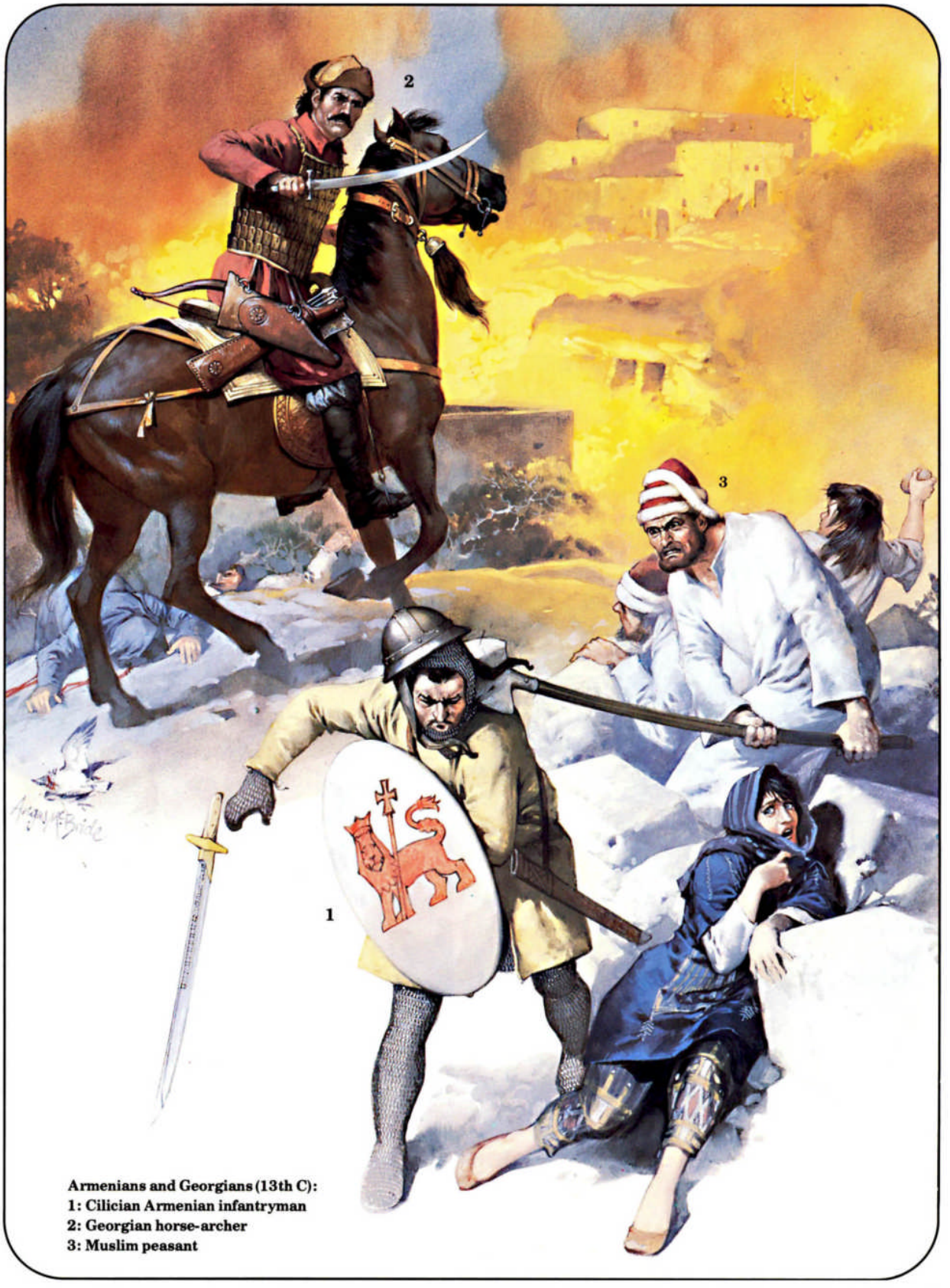
The Atabegs (12th-early 13th C):
1: Garrison infantryman
2: Tribal horse-archer
3: Ghulam cavalryman

The Ayyubids (late 12th-early 13th C):
1: Salah al Din ('Saladin')
2: Tawashi cavalryman
3: Guardsman

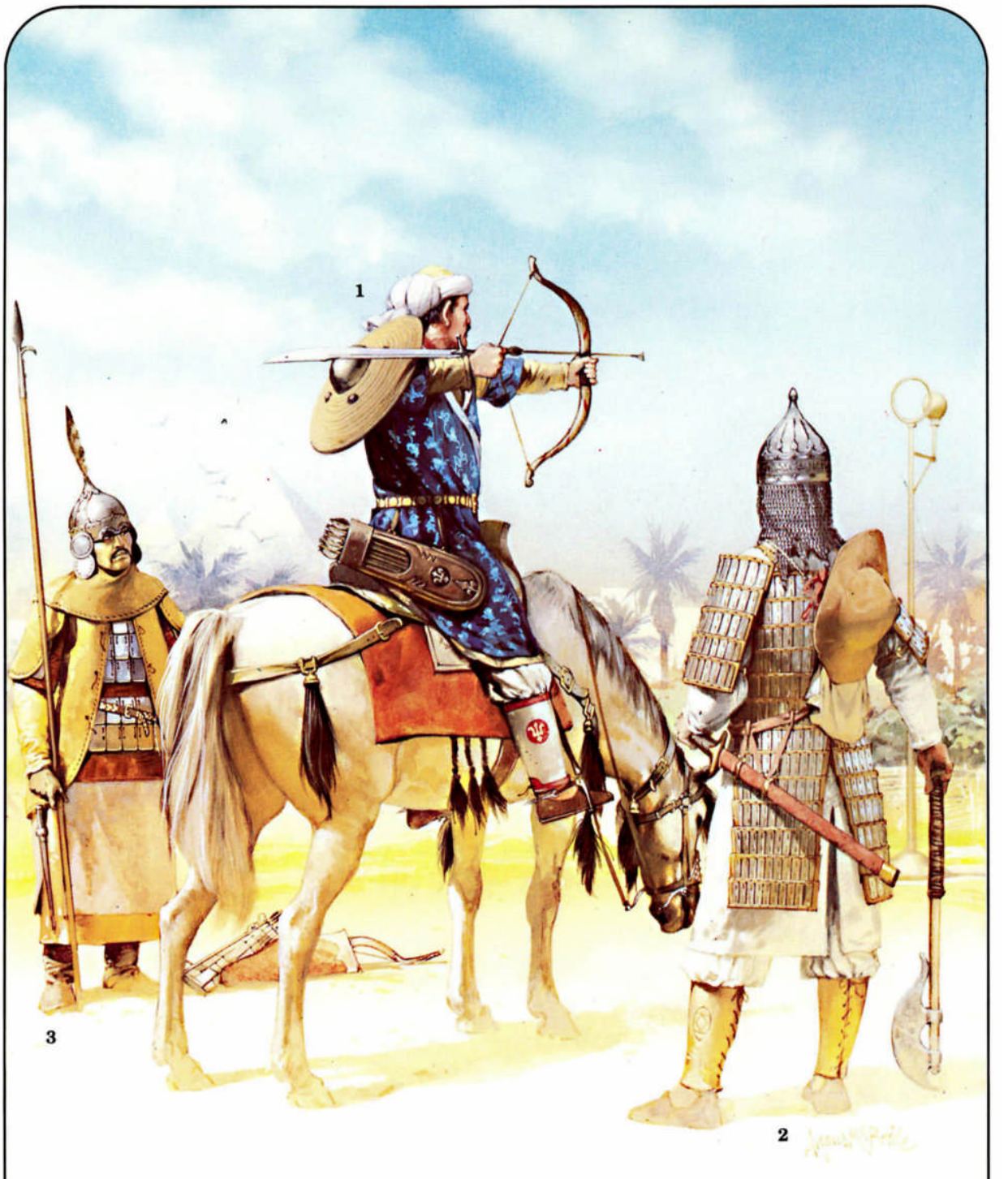
The Saljuqs of Rum (13th C):
1: Anatolian infantryman
2: Horse-archer
3: Ghulam heavy cavalryman



Khwarazmians and Abbasids (13th C):
1: Bedouin warrior
2: Iraqi infantryman
3: Khwarazmian cavalryman



Armenians and Georgians (13th C):
1: Cilician Armenian infantryman
2: Georgian horse-archer
3: Muslim peasant



The Mamluks (late 13th-early 14th C):
1: Junior Mamluk horse-archer
2: Mamluk heavy cavalryman
3: Mongol refugee

Saljuq military organisation in the 13th century was different from that of the 12th. The Crusaders' capture of Constantinople and the concentration of Byzantine resistance at Iznik (Nicea) in Anatolia led to a strengthening and clarification of the Byzantine-Saljuq frontier. It was also followed by increased mutual military influences between the Byzantine 'Empire of Nicea' and the Saljuqs of Rum. Large numbers of allied and vassal troops from Nicea itself, from Armenian Cilicia, Antioch and perhaps Byzantine Trabzon often fought for the Saljuqs. The Saljuq army now seems to have made extensive use of field fortifications, and in such a force nomadic Turcoman warriors would have had only a marginal role.

Saljuq military forces were now clearly divided into two parts, an 'Ancient' and a 'New' army. The former was the traditional structure as seen in the 12th century, and consisted mainly of *ghulams* and Turcomans. The supply of Greek *ghulams* greatly decreased after the consolidation of Byzantine Nicea. But an *iqta* system of government fiefs similar to that seen in Ayyubid regions developed, and was subsequently to influence the Ottoman *timar* structure. These *iqtas* were offered to leading *ghulams* and even to defeated foes to gain their loyalty.

The 'New' army largely consisted of paid or hired soldiers, some recruited individually, others in groups. Almost all, except for the European mercenaries, seem to have been known as *jira-khvars* or 'wage receivers'. Many were infantry recruited from the settled Turkish or converted local populations, Christian locals naturally being excluded because of their dubious loyalty. Others were either hired or came as vassals from beyond the Saljuq frontiers, so that the mixture of tongues in Saljuq armies could be quite astonishing: Georgian, Greek, Russian, Arab both bedouin and from Syrian or Jaziran cities, Armenian, Iberian (Caucasian), Kurd, Iranian from Kazvin and Daylan, and a whole variety of Turkish dialects in addition to that of the local Turks including Khwarazmian, Qipchaq, Qaymari, Genje near present-day Kirovabad in the USSR, and Surmari or east Anatolian Turkish, were all heard.

European mercenaries formed a distinct group within the 'New Army'. Many came from the Crusader states, others via employment in Byzantine Nicea or Armenian Cilicia. They numbered

Copy of al Sufi's *Book of Stars* made in Iraq or Egypt, AD 1131. The costume and equipment are in the pre-Saljuq tradition. (Topkapi Lib., Istanbul)

Fragment of a Fatimid manuscript from Fustat, late 11th–early 12th century, showing an infantry warrior with two javelins. (Mus. of Islamic Art, Cairo)

Infantry warriors on the *Blacas Ewer*, made in Mosul in AD 1232. (British Mus., London)

between 300 and 1,000, according to different sources, and included men from Germany and Gascony, Normans from southern Italy, northern Italians, troops from Cyprus and from various Venetian coastal possessions. Other Europeans served as part of vassal contingents, including some 200 from Trabzon (*c.*1240); 1,000 cavalry and 500 crossbowmen from Cilician Armenia (*c.*1225); 300 'lances', each perhaps a small cavalry unit, from Cilicia plus a further 29 lances from the Armenian leader Constantine of Lampron (*c.*1240); 400 lances from Byzantine Nicea (*c.*1240); and 1,000 supposedly European lances from Aleppo (*c.*1240).

Following their crushing defeat by the Mongols, the Saljuqs of Rum declined slowly but steadily. Their army remained much as before, although there were changes in the relative importance of its parts. *Ghulams*, though fewer in number, remained the core of the 'Ancient' army; but the *iqta* structure collapsed, to be replaced by a more strictly feudal system. Land was now usually owned by military families and could be passed from father to son. Turcoman auxiliaries are rarely mentioned, but Turcoman *jira-khvars* or mercenaries became increasingly important. Many hailed from the Germiyan tribe which soon controlled large parts of Anatolia. Foreign mercenaries, including some Europeans, are still recorded, but vassal troops disappear after 1256.

A new force was, however, appearing on the scene, a force which was to play a vital rôle in the earliest days of the subsequent Ottoman state. It appeared under various names: *fityan* or 'brotherhoods', *ikvans*, or in Persian *javans*, which simply meant 'brothers'. All seem to have been based upon a loosely organised code of religious, civil and military ethics called the *futuwa*. Most of such forces were infantry and almost all were based upon towns, where they supplemented or even supplanted existing militias. In the confusion of the Saljuq decline such troops normally found themselves defending their cities against the surrounding and barely controlled Turcoman tribes.

The Turcomans had themselves previously been concentrated in the no-man's-land between Saljuq and Byzantine authority. Here they had extended Muslim power by dominating the countryside, leaving towns like islands of Byzantine territory which, when unsupported by the central government, eventually came to terms with the Saljuq ruler. Now, benefiting from Mongol victories, the Turcomans used the same tactic against Saljuq cities, which thus had to accept Turcoman overlordship. Much of the old urban *ghazi* class of the frontier regions deserted the Saljuqs for the rising power of various Turcoman dynasties, as did warrior refugees from the east, many religious teachers, dervishes, and even columns of dispossessed peasants.

Additional Turkish tribes, some superficially converted to Christianity but others still pagan, had also been invited from southern Russia to western Anatolia by the Byzantines to strengthen the Empire's own defences. This happened soon after the rulers of Nicea recaptured Constantinople from the Crusaders. By and large, however, the Byzantine government now ignored its Anatolian provinces to such an extent that frontier governors and even entire garrisons, as well as the neglected warrior-peasantry, increasingly deserted to new Muslim *ghazi* states of Turcoman origin.

Traditional styles of combat and arms had persisted among Turcoman tribes in many parts of Anatolia, and these are well described in the (probably) late 13th-century *Book of Dede Korkut*, a Turkish national epic comparable to the Armenian *David of Sassoun*. Here equipment included coloured shields, swords, long lances, long mail hauberks, helmets, bows, arrows, quivers, daggers and lamellar cuirasses of iron or hardened leather. Other sources confirm that the tribal Turcomans

were often well equipped, up to 20,000 of them supposedly besieging Konya in 1262, all wearing *jawshan* cuirasses. Nevertheless, it also seems clear that the weight and quality of Anatolian armour had declined since the great days of the Saljuqs of Rum, just as the importance of horse-archery had correspondingly increased.

Assassins and Caliphs

A group of warriors who took part in the tangled military struggles of the Middle East in their own peculiar manner were the so-called Assassins. This name is misleading in its modern connotations, and is also inaccurate in its original derivation.

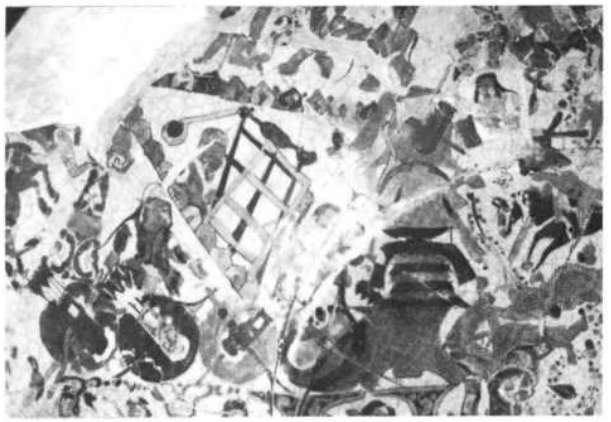
The Isma'ilis of Syria and Iran were originally closely allied to the Fatimid Caliphate of Egypt. Both belonged to the *Shi'a* branch of Islam and both originally relied as much on missionaries as on soldiers to propagate their beliefs. But they also had their differences. The worst of these developed after the death of the Fatimid Caliph al Mustansir in 1094. His eldest son Nizar was dispossessed and subsequently murdered in favour of a younger son, al Musta'li. The Fatimid Caliphate had already largely abandoned attempts at expansionism and had set about rebuilding its prosperity under the guidance of cautious Armenian viziers (see above). Yet the murder of Nizar caused horror among many eastern Isma'ili minorities. Many now shunned the Fatimids, and became known as Nizaris. It was they who began the campaign of political and religious murder for which they are chiefly remembered. They were also, it should be noted, great patrons of literature, theology, poetry and mystical philosophy. Their first military base was the great castle of Alamut in northern Iran. The Nizaris of Syria were closely linked to those of Iran and usually accepted the authority of the Imam at Alamut. An exception was the period when Sinan Rashid al Din controlled the Nizaris' Syrian mountain castles from his headquarters at Masyaf (1162–1192).

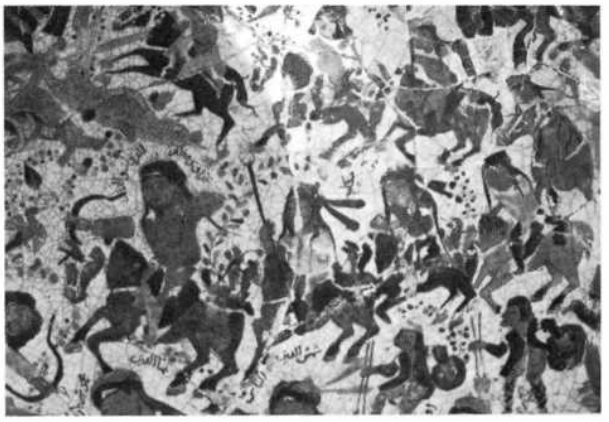
Since these Syrian Nizaris pursued their military struggle by, on the one hand, sending men to kill their foes individually and, on the other, by seizing and holding a string of strong castles, cavalry had virtually no part in their operations. Their organisation was, however, strictly regulated. The leading *da'is* or missionaries became military leaders

Armoured cavalryman on a late 13th early 14th-century Mamluk inlaid bronze basin, wearing a short lamellar cuirass. (Victoria and Albert Mus., London)

and administrators supported by secondary *da'is*. Below these were the *rafiqs* or 'comrades', who owed total obedience to their *da'i*. Next came the *fida'is* who were the active arm of the movement but who had only been initiated into the Nizari religious mysteries up to a certain point. They were trained not only in combat skills but also in foreign languages and other religions. This enabled them to merge into most cultural backgrounds, a skill that sent ripples of fear across the entire Middle East. The story that they fortified their courage with hashish, thus being termed *hashishin* and by derivation 'assassins', is a myth. The lowest rank of active Nizaris were the *lasiqs* or 'beginners', and below them came the non-participating remainder of the community.

After Sinan's death the Syrian Nizaris developed an even more sophisticated structure, probably concentrating their training in the castle of al Kahf, and sub-dividing the *da'i* rank into *naqib* (officer), *janah* (wing), *nazir* (inspector) and *wali* (commander of a castle). It is also interesting to note the number of similarities between Nizari organisation and that of the Crusader Templers. *Rafiqs* wore white tunics with red finishings, caps and girdles





Details from a large Iranian early 13th-century ceramic dish. It probably illustrates a real event, with the main characters being named. On the right, the attacking army includes horse-archers and javelin infantry. On the left, a fortress is defended by a siege-engine operated by an Arab or Persian. The castle also contains a store of weapons, shields and armours. (Freer Gall., Washington)

that seem astonishingly similar to the red and white uniforms of the Temple.

Another minor but important participant in the struggle for the Middle East was the Abbasid, *Sunni* Muslim, Caliphate of Baghdad. The Abbasids had for centuries been mere puppets in the hands of conquerors some of whom, like the Saljuqs, treated them with respect, while some did not. In the 12th and early 13th centuries, however, the Abbasid Caliphs gradually regained their independence—though never becoming more than the rulers of Baghdad and central Iraq. Their small army was structured like that of other petty rulers, with *ghulams*, Turkish, Arab and other mercenaries and a perhaps larger than normal element of volunteers.

Baghdad, like other cities, had its militia, but from this there sprang in the late 12th and 13th centuries a new and rather mysterious force called the *futuwa* (see above). The name had been known for centuries, originally referring to ideals of tribal rather than religious solidarity. Next it was associated with *ghazi* groups and mystical associations on the Muslim frontiers. In 11th- and 12th-century Aleppo the term was sometimes synonymous with the *ahdath* militia.

Then, at the end of the 12th century, the Abbasid Caliph al Nasir took over leadership of the *futuwa* groups in Iraq. But he did not turn them into a kind of Islamic reflection of European chivalry, as has sometimes been claimed; nor did he make them part of the existing administrative system. The newly structured *futuwa* was not designed to stop the Crusader advance, for the Caliphs of Baghdad had little interest in Syrian affairs; Al Nasir's move was simply an attempt to control powerful and quarrelsome associations which threatened his control of Baghdad. His leadership may, however, have lent prestige to the *futuwa* movement even beyond Iraq.

The Caliph imposed a degree of order, and encouraged practice with the crossbow (while trying to ensure that possession of this newly popular weapon depended upon his personal permission). He similarly controlled the use of carrier pigeons, which for some reason were also associated with the *futuwa*. Finally he tried to ensure that only he, the Caliph, had the right to donate a particular style of trousers called *sarawil al futuwa* which had become the mark of such associations.

Members of *futuwa* groups were, like their sworn enemies the Nizaris, called *fityan* or *rafiqs* and were led by their *kabir* or 'big one'. Jews and Christians could be received as provisional members, but would only become full members if they accepted Islam. Full members were then given cloth girdles, an initiatory salted drink, and the ceremonial trousers, though weapons were sometimes substituted for these. After the fall of Baghdad to the Mongols, the Mamluk Sultans of Egypt continued the tradition into the early 14th century.

The Mamluks

The Mamluk army in late 13th-century Egypt and Syria developed out of previous Ayyubid forces. It was not, however, identical. Although late Ayyubid strength was formidable it was also fragmented, the state being more of a family coalition than a unitary

Shields carved on the late 11th-century Bab al Nasr gate in Cairo probably symbolise sections of the Fatimid army. The kite-shaped shields are *januwiyah* as used by infantry, while plain round shields might be cavalry *daraqahs*. Decorated shields with straight swords may be symbols of power, as later seen on the gate of Saladin's castle at Qalaat al Jindi.

structure. Egypt could field from 10,000 to 12,000 cavalry under the Ayyubid Sultans al Salih and al Kamil. Damascus maintained up to 3,000 cavalry under al-Mu'azzam, but this number included not only the city garrison but also troops from Palestine, Jordan and southern Syria. Aleppo and northern Syria probably fielded a further 3,000, although a high proportion of these were auxiliaries. Smaller cities like Hims and Hama could still only contribute 400 to 500 each in 1239, while troops from towns like Karak, Baalbak, Banyas and Bosra were probably already included in the larger force of Damascus. The Ayyubid Jazirah was strategically very important, and by the mid-13th century the eastern part possibly furnished 1,800 cavalry, the northern and western provinces around 4,000.

While the total of such forces was large, the individual armies were mostly small and thus had simple internal structures. Here lay a major difference from the fully developed Mamluk army of the late 13th century. While the Ayyubids used slave-recruited *mamluks* as an élite element within a mostly free-born army, Mamluk Sultans made *mamluk* troops the foundation of both the army and the state.

Important changes had already begun under the rule of one of the last Ayyubids of Egypt, al Salih. He imposed his centralising authority on most of the Ayyubid family coalition, and relied on his personal followers rather than the family for political support. To do this al Salih recruited large numbers of Turkish *mamluks* to form his Bahriyya and Jamdariyya regiments. He then separated these troops from the rest of his army on the fortified island of Roda close to Cairo. Al Salih also encouraged these regiments to have a sense of pride in their Turkish origin and *mamluk* status. Large-scale recruitment of such men was only possible because Mongol expansion had destroyed the previously powerful Qipchaq nation. Military slaves became even more abundant following Mongol expansion into southern Russia; but even so the Bahriyya only numbered 800 to 1,000 men, while the élite Jamdariyya guards rarely exceeded 200 men. Al Salih's Bahriyya remained, in fact, a model for later Mamluk military organisation.

Although the subsequent Mamluk state was far more centralised than that of the Ayyubids, such unification was not achieved at once, nor was the Mamluk army all concentrated in Egypt. Élite forces were based in Cairo, but large provincial armies were also stationed in Upper Egypt and Syria. Those in Syria were obviously important as the Mamluks were threatened by both Mongols and Crusaders, while Egypt itself was exposed to European attacks by sea.

The Mamluk army reached a high point under Baybars at the end of the 13th century. In some ways this great military leader took his main

enemies, the Mongols, as an ideal. When Baybars took control of Egypt the country was host to numerous refugees who had fled the Mongol advance into Syria. Most of these, including the *mamluks* and free-born troops of the local Ayyubid principalities, later seem to have turned into the *halqa* or provincial forces of Egypt and Syria. Baybars also inherited the existing *mamluk* forces of Egypt and the regiments of previous sultans. So one of his first tasks was to formalise the Mamluk army, turning it into one of the most coherent forces in medieval history. He did the same with the state's fortifications, greatly improving the defences of many cities. There was no purge of previous Ayyubid officers, and additional free-born warriors were still enlisted, though no longer into the élite regiments. Kurdish and Turcoman officers continued, for example, to play an important rôle in Syria; but the main source of free-born troops was now Turco-Mongol refugees who, for various reasons, fled from Mongol territory. These warriors, known as *wafidiyya*, already had their own techniques and tactics, and some 3,000 arrived in Syria during the reign of Baybars. They were not, however, permitted to retain a separate identity but were generally attached to the royal *mamluk* regiments or those of the *amirs*.

The central army of the Mamluk state, based in Egypt, was now divided into three parts: the sultan's *mamluks*, the *mamluks* of the *amirs* (officers), and the *halqa*. These latter were mostly free-born cavalry on lower pay than the *mamluks* and were, in effect, an Egyptian 'provincial' army. Comparable *halqa* troops were stationed in Syria. They were commanded by officers who normally also held *iqta* fiefs, the sizes of which corresponded to their ranks. Such officers were *amir mi'a* (nominally, leader of 100) or *muqaddam alf*, who in reality commanded 1,000 troopers in battle, perhaps because these men were subdivided under junior officers. Next came the *amir arba'in*, sometimes called *amir tablkhanah* or *amir kabir*, who led 100; and the *amir 'ashara* who led ten. Temporary field units of about 40 men were commanded by *muqaddamu al halqa*. Very senior officers held *iqtas* which could support up to 250 men. This system was, however, by no means rigid, and varied according to circumstances.

The sultan's personal *mamluks*, the backbone of

The Bab Tuma gate of Damascus, built in AD 1227.

his army, totalled around 2,000 men under some 40 officers in the early Mamluk period, but rose to almost 10,000 by the end of the 13th century. Almost all senior officers and leaders of expeditions were drawn from this élite force. When a new sultan came to power the *mamluks* of the previous ruler lost prestige but were not necessarily purged. Generally they were transferred to the service of other officers as *amir's mamluks*. While the new ruler built up his own *mamluk* following, a few older *mamluks* would generally be retained because of their experience. But these *sayfiya*, as they were known, now served as individuals in the highly competitive Mamluk court and consequently posed no political threat.

Finally there was the *khassakiya*, the ruling sultan's personal bodyguard of between 400 and 1,200 men. Only they carried swords at all times. Their duties were also ceremonial and political, senior officers and ambassadors normally being chosen from their ranks. Naturally there was great rivalry between such *mamluk* units, but this did not reach the murderous intensity of later years.

The rôle of surviving Ayyubid petty principalities in Syria and the Jazirah cannot be ignored. Many Kurdish troops left Egypt after the initial Mamluk takeover in 1250 and transferred their allegiance to these Ayyubid rulers. Smaller numbers of these princes returned to Syria under Mamluk suzerainty following the Mongol defeat at Ayn Jalut in 1260. The princes of Hims retained their own army until 1263, of Karak until 1286 and of Hama until 1341. Such forces were, however, never as powerful as the main Mamluk units garrisoned at Damascus and Aleppo.

The overall size of the Mamluk army is hard to determine. It might have been as great as 16,000 *mamluks* and 24,000 *halqa*. Their level of training tended to be very high, improving steadily from the late Ayyubid period into the early 14th century. The revival, to a high standard, of traditional archery techniques was central to Mamluk successes over the Mongols at Ayn Jalut (1260), Hims (1281) and Shaqhab (1303). This was reflected in Mamluk tactics, which normally placed *mamluk* archers at the centre with bedouin auxiliaries on one wing and Turcomans on the other. Mamluk tactics and technology were essentially a refinement of those of the Ayyubids. By the end of the 13th century, having finally defeated

In AD 1132 the huge Temple of Bel in Tudmir was turned into a fortress to defend this strategically vital oasis. Its main door is protected by a simple machicolation.

the Crusaders, and being in the process of confining the Mongols and overcoming various lesser foes within the Middle East, the Mamluks were among the most successful troops of their day. Their superior patterns of logistics, armaments and discipline were to provide the foundation of a military tradition upon which later Mamluk and Ottoman successes were to be built.

In this constantly refining tradition the rôle of cavalry was clearly paramount. Although infantry were still considered important, horsemen bore the brunt of offensive warfare and large-scale manoeuvre in which their speed, striking power and the weight of their weapons were considered superior. Since offence was their primary rôle it is not surprising to find that most late 13th- or early 14th-century Mamluk *furusiya* training manuals laid as much emphasis on the use of the lance as on the bow. Such *furusiya* manuals also show that archery was not in the nomadic Turcoman style, but was again a development of earlier Byzantine and Abbasid traditions.

Mamluk mounted archers were trained to shoot from horseback, if need be in all directions. When this was done on the move it generally seems to have been from close range, as demonstrated in an exercise known as the *qabaq* in which the target was placed on top of a pole. An even closer-range type of horse-archery was practised in the *qighaj* exercise: here a target lay on the ground, and was apparently shot at as the rider almost rode over it. These were clearly not harassment techniques, but shock tactics.

Of course, the Mamluk state also employed light cavalry. The majority of such troops would have been tribal auxiliaries. Here one might find the only real survival of Central Asian nomadic archery techniques, for many Turcoman as well as Kurdish tribes were paid to protect the frontiers of Syria, Palestine and Lebanon. Comparable Arab bedouin tribes were engaged to watch the borders of Syria, Sinai and Egypt.

The true infantry of the Mamluk state seem to have been either locally recruited or drawn from the ranks of junior *mamluks*. Unlike their aristocratic European foes, or even the Mongols, all *mamluks* were also trained to fight on foot. A great variety of equipment was listed as being used by such infantry, many of the non-*mamluk* elements of which seem to have been archers drawn from the settled communities of Syria, Palestine and Lebanon.

One area of warfare that was clearly the business of infantry was pyrotechnics. The Muslims had greatly expanded the original oil-based Byzantine fire weapons, and habitually made use of *naft*—'Greek Fire'—which was often projected through a copper tube. Other variations included large or small *qarura* fire-pots full of *naft*, which were either thrown by hand or shot out of siege-engines; and *siham khita'iya* or 'Chinese arrows', which had cartridges of *naft* attached to them. A major development came around 1230 when knowledge of saltpetre reached the Middle East from Central Asia. A primitive form of gunpowder was soon in use, combining ten parts of saltpetre, two of charcoal and one and a half of sulphur. This was, confusingly enough, still referred to as *naft*; and was incorporated into incendiary weapons based upon previous devices. Whether or not this primitive gunpowder was used as early as 1300 to propel a projectile, or (more probably) to spray a form of grapeshot from a fixed position, remains a hotly debated question.

Most of the surviving defences at Shayzar (*left*) date from Zangid or later times. This room (*right*) is above the main gate and shows part of the portcullis mechanism.

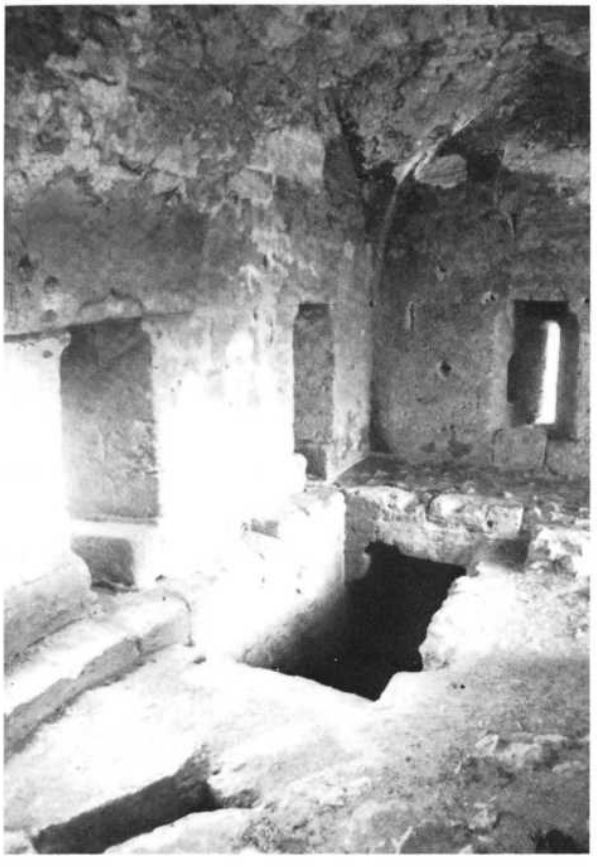
Arms and Armour

Central Asian influences had the most important effects on Middle Eastern arms and armour from the 11th to 14th centuries. These most obviously showed themselves in the sabre or curved sword, which came to predominate from the late 13th century. The Islamic sword had always been considered a cutting rather than a thrusting weapon. In earlier centuries most had been relatively short, straight and non-tapering, except in eastern Iran and Transoxania where an almost straight, single-edged longsword seems to have been popular.

The date of the first appearance of the distinctly curved sabre in Islam is debatable. The weapon had its origins in Turkish Central Asia but was not widespread in Islam until after the Saljuq conquest. Yet a few such weapons had clearly been imported into the Muslim area prior to this date; one has recently been excavated at Nishapur. From the early 12th century onwards the sabre was the most popular form of sword in eastern and central regions, although straight swords did not disappear.

The mace was primarily an armour-breaking weapon, and its geographical spread may thus be significant. It was, in fact, most common in the Iranian and Turkish provinces, and from there it spread westwards, reaching Christian Europe via Byzantium and Islam.

The lance was traditionally regarded in the Arab world as a warrior's most reliable weapon. Its status was almost as high among Iranians, and it was not neglected by nomadic Turks despite their primary reliance on horse-archery. All these peoples used the weapon in a variety of ways on horseback, being more versatile than their European foes. Cavalry spears were normally shorter than those of the infantry, which probably indicates that the latter



used such weapons as pikes. The *qanah*, for example, was the longest Muslim spear and it first appeared as an infantry weapon. Only later was it adopted by horsemen, in whose hands it was contrasted with the shorter and stouter *quntariyah* of Romano-Byzantine origin.

Polearms for cut and thrust are the least clear form of weapons in medieval Islam, but their use is further evidence for the continued importance of infantry. A clearly documented reliance on infantry javelins in many areas may reflect a limited development of infantry archery, although this seems to be contradicted by other evidence. Alternatively it could suggest the continuing existence of disciplined infantry forces who used such weapons against both cavalry and other infantry.

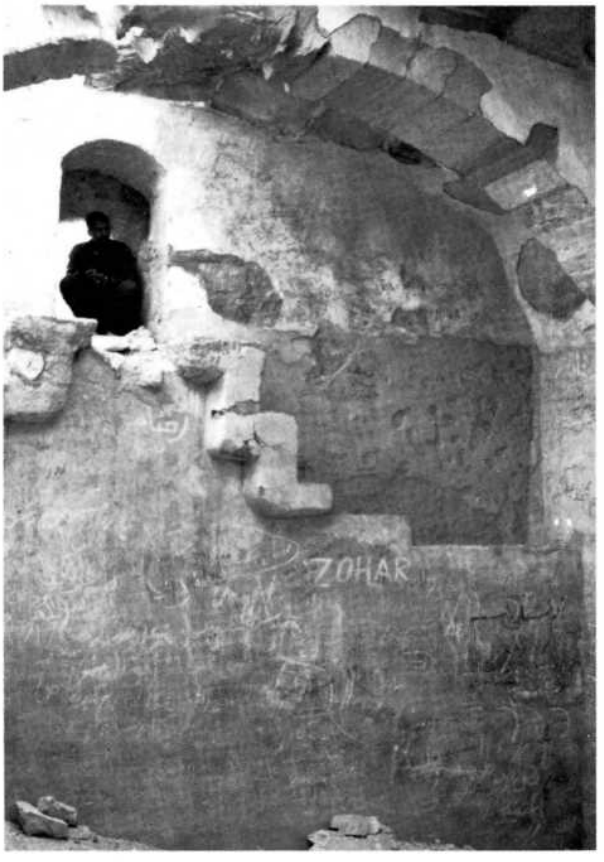
The arrow-guide, *nawak* or *majra*, might be regarded as a precursor of the crossbow, at least in the Middle East. Its origins are unclear, and although it spread from the east it reached no further than Egypt. The true crossbow also came from the east, from China, but in pre-Islamic times. It was recorded in Iraq and Iran as early as the 10th century but, after a lapse of some 400 years, it had also reappeared in Europe at around the same time. There is little evidence to suggest that this later crossbow reached Christendom via Islam, or vice versa.

From the 11th to 13th centuries flexible armours were regarded as the best protection. This was a response to existing military circumstances and was not a result of technological decline. Muslim armourers could clearly work with large pieces of metal plate, as is shown in the design of helmets. Nor were flexible mail or metal lamellar armours necessarily light, though leather lamellar and 'soft' armours such as quilted garments were clearly lighter. The popularity of these latter styles of defence could also betray a local poverty in metal resources, but generally indicated a tactical emphasis on speed of manoeuvre. Leather lamellar was also often worn in conjunction with mail. Lamellar offered a graduated shock-absorbing protection against arrows and would, under most circumstances, be more effective than plate armour of comparable weight. Nevertheless, hauberks of mail and, more rarely, of scales remained the most widespread form of protection in the central Muslim lands until the 12th century. When padded by a soft armour, mail remained the best weight-for-weight protection against a sword-cut and even, perhaps, against a hand-held spear.

Until the 14th century Islam might have been in advance of Europe where protection for arms and, to a lesser degree, legs was concerned. This was particularly true in eastern regions, and probably reflected the greater limb-severing capabilities of a curved sabre compared with the bludgeoning impact of a European broadsword.

The variety of terms relating to Muslim helmets seem to reflect a genuine variety of forms and methods of construction. These ranged from the one-piece iron *baydah* of oval form, through the segmented *tark*, to the *khud* (which seems to have consisted at least in part of hardened leather). The *mighfar* was a mail coif.

Most Muslim shields were round, but kite-shaped varieties were known in the Middle East from the late 11th to early 14th centuries. Their origins are disputed; and while the small hand-held *tariqah* variety might have shown Byzantine



Saladin's great mountain-top castle of Qalaat al Jindi overlooks the main pilgrim route across Sinai. This shows one of at least three underground water storage cisterns, vital in such a desert area.

influence, the *januwiyah*, a tall infantry shield with a flattened base, might have stemmed from Italy and more particularly from Genoa. This city was certainly a major exporter of military hardware to the Middle East.

Written sources show that the use of horse-armour never died out in Islam, but it is almost entirely absent from the pictorial record until the 13th century. Some bards were quilted or of felt, others being of the same cloth-covered and padded mail construction as the man-covering *kazaghand*. Lamellar horse-armour was, until the late 13th century an eastern fashion.

Many of the developments seen in European weaponry during this period seem to follow those of Islam after a gap of one or two generations. This is not to say that all had Muslim origins, though some clearly did so. The most obvious candidates for some degree of Islamic influence are the *bascinet* helmet, the mail aventail, the cotton-padded *aketon*, hardened leather and later tubular metal limb-defences, the *jazerant* (from *kazaghand*), various scale-lined chest and abdomen defences worn beneath a hauberk, horse-armour, the winged (i.e. flanged) mace, the light horseman's axe, and the counterweight mangonel known as a *trebuchet*. This latter siege engine emerged in the Middle East during the 12th century as a development of the widespread man-powered mangonel, but it is as yet impossible to say whether it was a Byzantine or a Muslim invention.

Further Reading

A huge number of books have been written about the Crusades. Far fewer concentrate on the Muslim side of the struggle while fewer still focus on military matters. The following is a selection of specialist works, some of them obscure and difficult to find but nevertheless extremely useful.

D. Ayalon, 'Studies in the Structure of the Mamluk Army', *Bulletin of the School of Oriental and African Studies* XV/2 (1953), pp. 203–228

A. Bombaci, 'The Army of the Saljuqs of Rum', *Istituto orientale di Napoli: Annali* ns XXVIII (1978), pp. 343–369

A. Boudot-Lamotte, *Contribution à l'Etude de l'Archerie Musulmane* (Damascus 1968)

C. Cahen, 'Un Traité d'armurerie composé pour Saladin', *Bulletin d'Etudes Orientales* XII (1947–48), pp. 103–126

M. Canard, 'La Procession du Nouvel An chêz les Fatimides', *Annales de l'Institut des Etudes Orientales de la Faculté des Lettres d'Alger* X (1952), pp. 364–398

A. S. Ehrenkreutz, *Saladin* (Albany 1972)

R. Elgood (edit.), *Islamic Arms and Armour* (London 1979)

N. Elisseeff, *Nur al Din: un Grand Prince Musulman de Syrie au Temps des Croisades* (Damascus 1967)

H. A. R. Gibb, 'The Armies of Saladin', *Cahiers d'Histoire Egyptienne* III (1951), pp. 304–320

P. H. Hitti (trans.), *Memoires of an Arab-Syrian Gentleman (Usamah ibn Munqidh)* (reprint Beirut 1964)

R. S. Humphreys, 'The Emergence of the Mamluk Army', *Studia Islamica* XLV (1977), pp. 67–99 & 147–182

E. McEwen, 'Persian Archery Texts: Chapter Eleven of Fakhr-i Mudabbir's Adab al Harb (Early Thirteenth Century)', *The Islamic Quarterly* XVIII (1974), pp. 76–99
D. C. Nicolle, 'The Impact of the European Couched Lance on Muslim Military Tradition', *Journal of the Arms and Armour Society* X (1980), pp. 6–40
V. J. Parry & M. E. Yapp (edits.), *War, Technology and Society in the Middle East* (London 1975)
J. Sourdel-Thomine, 'Les Conseils du Sayh al-Harawi à un prince Ayyubide', *Bulletin d'Etudes Orientales* XVII (1961–62)

The Plates

A: The Great Saljuqs (late 11th–early 12th century)
A1: Drummer
Although war-drums played a major rôle in Saljuq and other Muslim armies, drummers do not appear to have been distinctively dressed. This unarmoured man wears simple Turco-Iranian costume with a felt cap and a heavy woollen coat. (Lustre tile, late 12th–early 13th C Iran—Mus. of Fine Arts, Boston; lustre tile, late 12th C Iran—Freer Gall., 11.319, Washington; *Maqamat*, AD 1237 Baghdad—Bib. Nat., Ms. Ar. 5847, Paris; *Automata*, *c.*AD 1206 Jazirah—Topkapi Lib., Ms. Ahmad III.2115, Istanbul.)

A2: Turcoman leader
This man is shown in the costume of the nomadic regions of Turkestan, and represents a newcomer to the Muslim world. His helmet is made of directly riveted segments, and he wears a light form of leather lamellar cuirass covering only the front of his abdomen. His weapons are based on examples found in pagan Turkish graves. (Also, Pecheneg 'balbal' memorial statues, 11th–12th C—*in situ* Dneiper region.)

A3: West Iranian Ghulam
This professional warrior of slave origin demonstrates the contrast between the *ghulams* and the tribal Turcomans within Saljuq armies. He is heavily armoured in the best available equipment: a decorated one-piece helmet, a face-covering mail coif and an iron cuirass which is half-way between scale and lamellar construction. (Helmet of probable Islamic origin, 11th–12th C Iran—Archaeolog. Mus., Budapest; armour fragments, 9th–12th C Khirgiz—present location unknown; fresco fragments, 10th–11th C Nishapur—Met. Mus. of Art, New York; bronze inlaid mirror, 11th–12th C Iran—Louvre, Paris; wall paintings, AD 1096 Georgian—*in situ* Iprari, Georgia; carved relief, mid-11th C Georgian—*in situ* Nicorzminda, Georgia.)

In 1216 the defences of Ajlun castle were greatly strengthened. Many of the new chambers had arrow-slits in rectangular recesses big enough to house a *ziyar* or frame-mounted crossbow.

B: The Fatimids (12th century)
B1: Jarwajaraya infantryman
This man, as a volunteer, has simple equipment and his costume is that of a civilian. Most such volunteers would not even carry swords. One of his javelins is clearly designed to penetrate armour; and

The interior of the late 11th-century Bab Zuwayla gate in Cairo. It reflects Armenian and Syrian influences, and was part of new stone defences that replaced earlier brick walls.

his shield is of the tall flat-based *januwariyah* type. (Relief carvings, *c.*AD 1087, Fatimid—*in situ* Bab al Nasr, Cairo; Coptic Gospel, AD 1179–80, Egyptian—Bib. Nat. Ms. Copt. 13, Paris; javelins from Serce Liman wreck, 10th–early 11th C Islamic—Castle Mus., Bodrum; cotton tunic, Fatimid—Coptic Mus., Cairo.)

B2: Arab cavalryman

This mailed horseman, perhaps from the Asqalan garrison, shows the degree of similarity between Fatimid and southern European warriors. His shield and gaiters seem almost Byzantine, while his decorated belt shows a long-standing Turkish influence. The leather chamfron on his horse's head may be more decorative than protective. (Painted paper fragment from Fustat, early 12th C Egypt—Dept. of Orient. Antiq., Brit. Mus., London; sword from Serce Liman shipwreck, 10th–11th C—Castle Mus., Bodrum; lustre plates and fragments, 11th–12th C Egypt—Mus. of Islamic Art, Cairo; fragment of enamelled glass, 10th–11th C Egypt—Benaki Mus., Athens.)

B3: Sibyan al Rikab

This splendidly dressed soldier, whose title means 'young man of the (ruler's) stirrup', was one of the Fatimid Caliph's closest bodyguards. He carries a parasol, long a symbol of authority in the Middle East, which is based upon a detailed description of one carried in Fatimid parades. Under his embroidered tunic he wears a mail hauberk, and under his turban an iron helmet with a shagreen-covered aventail. (Painted wooden ceiling, *c.*AD 1140, Siculo-Islamic—*in situ* Cappella Palatina, Palermo; carved wooden panels from Caliph's Palace, 11th C Fatimid—Mus. of Islamic Art, Cairo; relief carving, *c.*AD 1087 Fatimid—*in situ* Bab al Nasr, Cairo; painted paper fragments, 11th–12th C Fatimid—Mus. of Islamic Art, Cairo; carved ivory plaque, 10th–11th C Fatimid—Louvre, Paris; embroidered garment, Fatimid—Coptic Mus., Cairo.)

C: The Atabegs (12th–early 13th centuries)

C1: Garrison infantryman

Once again this man shows the similarity between East and West, almost all his equipment mirroring that of neighbouring Byzantium. The long scarf across his chest appears in many pictorial sources and may represent an unwound turban. The large frame-mounted crossbow or *ziyar* is shooting fire-pots. (Carved relief, AD 1233–59 Iraq—*in situ* Al Han, Jabal Sinjar; carved relief, AD 1233–59 Iraq—now destroyed, Amadiyah; Syriac Gospels, early 13th C Jazira—Vatican Lib. Ms. Syr. 559, Rome & Brit. Lib. Ms. Add 7170, London; *Warqa wa Gulshah*, late 12th–early 13th C Azarbayjan—Topkapi Lib. Ms. Haz. 841, Istanbul.)

C2: Tribal horse-archer

This dismounted Turcoman wears a typically Turkish double-breasted coat over a mail hauberk; his fur-lined hat was a mark of the warrior aristocracy. His bow includes a *majra* arrow-guide to shoot short darts. This is based on written descriptions, as no pictures seem to exist. (*Kitab al Diryaq*, mid-13th C Mosul—Nat. Bib. AF.10,

Vienna); ceramic figure, 12th C Raqqa—Nat. Mus., Damascus; ceramic bowl, *c.*AD 1228 Iran—Freer Gall. no. 43.3, Washington; *Materia Medica*, AD 1224 Iraq—Freer Gall. no. 575121, Washington.)

C3: Ghulam cavalryman

Beneath his armour, this warrior's costume is essentially in the same Turco-Iranian fashion as the Turcoman's. His painted one-piece iron helmet has a gilded leather neck-guard. His leather lamellar cuirass is still relatively light, but he carries both an animal-headed iron mace and a curved sabre. A heavier straight-bladed sword is also thrust beneath his saddle. (*Kitab al Aghani*, AD 1217/18 Iraq—Nat. Lib. Ms. 579, Cairo; shield-boss, late 12th C Khurasan—Louvre, Paris; ceramic bowl and tile, late 12th–early 13th C Iran—Mus. of Fine Arts, Boston; *Warqa wa Gulshah*, late 12th–early 13th C Azarbayjan—Topkapi Lib. Ms. Haz. 841, Istanbul.)

D: The Ayyubids (late 12th–early 13th centuries)

D1: Saladin

Here the great Muslim leader has the yellow cap, white shawl, mail coif and mail-lined *kazaghand* that he was often described as wearing. The *kazaghand* looked like a civilian garment but still gave discreet protection from an Assassin's knife. In the background is a mangonel of so-called Arab style. (Ceramic dish, 12th C Egypt—Freer Gall. no. 41.12, Washington; ceramic dish, *c.*AD 1228 Iran—Freer Gall. no. 43.3, Washington; *Maqamat*, AD 1242–58 Iraq—Suleymaniye Lib., Ms. Esad Effendi 2916, Istanbul; so-called 'Sword of Saladin'—Askeri Mus., Istanbul.)

D2: Tawashi cavalryman

A minority of Ayyubid troops were equipped as heavily armoured horsemen for close combat. This man's helmet may be of European origin. His mail aventail is covered with silk and over his mail hauberk he wears a relatively large iron lamellar cuirass. His horse wears a bard of doubled felt, giving some protection from arrows. (Ceramic fragment, 12th C Egypt—Benaki Mus., Athens; inlaid bronze bottle, early 13th C Jazira—Freer Gall. no. 41.10, Washington; inlaid bronze bowl, mid-13th C Syria—V & A Mus. no. 740-1898, London; sword-belt, mid-13th C Syria—Benaki Mus. inv. 1900-44, Athens.)

D3: Guardsman

There was much similarity in the ceremonial of eastern Islamic palace troops, this being a mixture of Iranian and later Turkish fashions. It spread to Egypt after the Ayyubid takeover. This man wears no armour, although his headgear may have been a form of helmet. (Ceramic figure, 12th C Raqqa—Nat. Mus., Damascus; *War and Medicine* manuscript fragment, AD 122 Iraq—Royal Asiatic Soc., London; *Maqamat*, AD 1242–58 Iraq—Suleymaniye Lib. Ms. Esad Effendi 2916, Istanbul; inlaid bronze bowl, mid-13th C Syria—V & A Mus. no. 740-1898, London; bronze war-hammer, 11th–13th C Iran—Keir Coll. nos. 105 & 106, London.)

E: The Saljuqs of Rum (13th century)

E1: Anatolian infantryman

This man is probably of Greek origin. His armour looks Byzantine, though such styles were also popular in the Balkans and southern Russia. His mail shirt, with an extension to protect the buttocks, would seem to have been originally made for a horseman. His double-ended spear is, however, an Iranian-style *zhupin*. (Carved relief from Konya, 13th C Saljuq—Mus. of Turkish Art, Istanbul; inlaid bronze candlestick, late 13th C

The Bab Qinisrin is the best preserved medieval gate in Aleppo's walls. Unlike the gates of Cairo and Baghdad it has a 'bent' entrance, which might indicate the greater threat of Crusader attack felt by Aleppo in Nur al Din's time.

The Bab al Wastani is the only surviving gate of medieval Baghdad. It was built of brick in traditional Iraqi style by the Caliph al Mustarshid in AD 1123.

Azarbayjan—Louvre, Koechlin Coll. no. 3436, Paris; wall-paintings, late 12th and early 13th C Christian art under Saljuq rule—*in situ* Chapels 19, 22 & 23, Goreme.)

E2: Horse-archer

This warrior is probably from the better-equipped aristocracy of an eastern Anatolian Turcoman tribe. His weaponry shows influence from both the Caucasus and the Pecheneg tribes to the north. Most such tribal warriors would not have possessed mail hauberks. (Fragment of gilded glass, 12th C Anatolia—Brit. Mus., London; carved relief, 11th–13th C Daghestan—Met. Mus. of Art, New York; embossed silver bowls, late 12th–early 13th C Byzantine or Georgian—Hermitage, Leningrad.)

E3: Ghulam heavy cavalryman

Although this trooper seems to betray Byzantine styles, the Byzantine regions were themselves now under strong Saljuq influence. His tall shield is clearly of Western inspiration, but his simple leather cuirass is purely Turkish. His tall segmented helmet is in Central Asian style. (Helmet, 13th–14th C Kuban—State Hist. Mus., inv. 343/33, Moscow; ceramic bowl, late 12th C Raqqa—Dahlem Mus., Berlin; Syriac Gospel, AD 1226 Jazirah—Bishop's Lib., Midyat; *Barlaam and Joasaph*, 13th C Byzantium—King's Coll. Lib., Ms. 338, Cambridge; coin, late 12th–early 13th C Artuqid—Bib. Nat., Paris; Gospel, mid-13th C Armenian—Matenadaran Ms. 7651, Yerevan.)

F: Khwarazmians and Abbasids (13th century)

F1: Bedouin warrior

Arab tribesmen rarely adopted Iranian or Turkish styles. Simple mail hauberks seem to have been the preferred protection, long spears and swords hung from baldrics the most common weapons. (*Maqamat*, AD 1225–50 Mosul—Bib. Nat., Mss. Arabe 3929, 5847 & 6094, Paris; *Chronicle of Ancient Nations*, AD 1307/8 Tabriz—University Lib., Edinburgh; *Universal History*, AD 1306–14 Tabriz (ex-Royal Asiatic Soc., London.)

F2: Iraqi infantryman

This warrior, probably of Arab origin, carries two Abbasid banners saved from a defeat at the hands of the Mongols. He wears a short kilt over his hauberk and has a bag of provisions over his shoulder. (*Maqamat*, AD 1237 Baghdad—Bib. Nat., Ms. Arabe 5847, Paris; *Kitab al Sufar*, AD 1130 Iran or Egypt—Suleymaniye Lib., Ms. Ahmet III 3493, Istanbul; swords, mid-13th (?) C Iraq—Topkapi Armoury, Istanbul.)

F3: Khwarazmian cavalryman

The horsemen of Transoxania seem to have been the most thoroughly armoured in eastern Islam. This man wears a helmet with a hinged visor of Central Asian origin, a mail hauberk and a large iron lamellar cuirass with hardened leather tassets. His sword is of a straight Iranian form, while his

horse is fully protected by an iron chamfron and leather bard. (Gilded quillons, 13th–14th C Iran—City Art Mus., St Louis; iron chamfron, helmet, visor and hauberk, 12th–13th C south Russia—State Historical Museum, Moscow; carved stucco panel, 12th–13th C Iran—Art Mus., Seattle; ceramic plate, late 12th–early 13th C Iran—Mus. of Art, Toledo, Ohio; carved stucco plaque, 13th C Iran—Art Inst. University, Chicago; *Shahnamah*, *c.*AD 1300 Iraq—Met. Mus., Rogers Fund 69.74.8, New York.)

G: Armenians and Georgians (13th century)
G1: Cilician Armenian infantryman
The kingdom of Lesser Armenia was, by the 13th century, virtually one of the Crusader States, and its warriors were under strong Western influence. Only this man's slightly curved sabre sets him apart from his European contemporaries. (Sabre, 12th–13th C Armenia—Archaeolog. Inst. Acad. of Sciences, Leningrad; Gospels, AD 1318 Armenia—Matenadaran Ms. 206, Yerevan; Gospels, *c.*AD 1270 Armenia—Freer Gall. Ms. 32-18, Washington; Gospels, AD 1262 Armenia—Walters Art Gall. Ms. W 539, Baltimore; *Histoire Universelle*, *c.*AD 1286 Acre—Brit. Lib., Ms. Add 15268, London.)

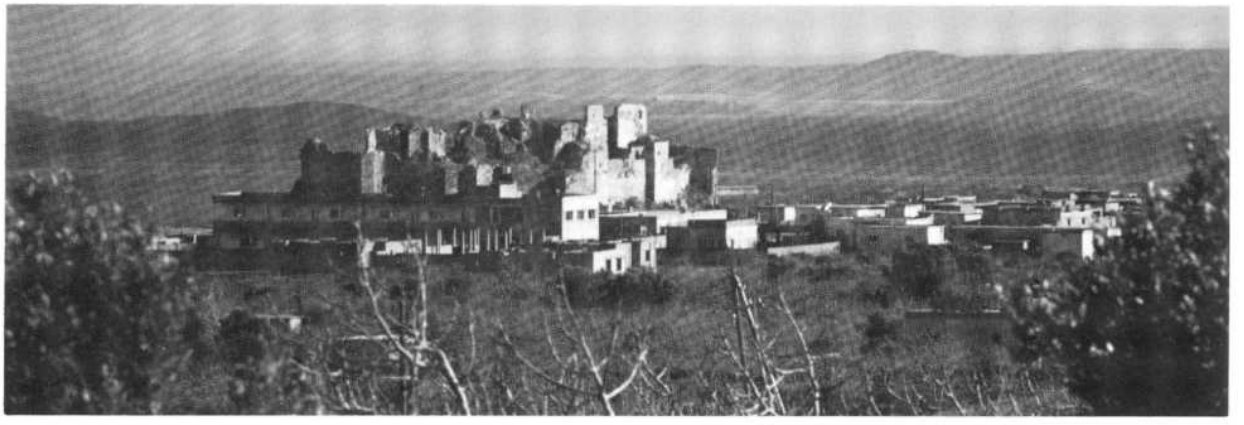
G2: Georgian horse-archer
Georgia had long been under Iranian and Islamic influence, but by the 13th century Turkish styles were dominant. This is shown in a lightly equipped horseman who is virtually indistinguishable from his Muslim neighbours. (Coin of Queen Turakina, late 13th C Georgia—Ray Gardner Coll., London; carved reliefs on stone crosses, AD 1233 and AD 1279 Armenia—Mus. of Armenian Art, Etchmiadzin; manuscript of al Siwasi, AD 1272, Saljuq Anatolia—Bib. Nat., Ms. Anc. Fonds Pers. 174, Paris.)

G3: Muslim peasant
The costume of the Arab peasantry of the Middle East has barely changed to this day, except that the basic *dishdashah* tunic appears to have varied in length. (*Kitab al Diryaq*, AD 1199 Jazirah—Bib. Nat., Ms. Arabe 2964, Paris; *Maqamat*, AD 1237 Baghdad—Bib. Nat., Ms. Arabe 5847, Paris; Arabic Gospel, AD 1299 Jazirah—Bib. Laur., Ms. Orient 387, Florence; *Kitab al Diryaq*, mid-13th C Jazirah—Nat. Bib., Ms. AF 10, Vienna.)

H: The Mamluks (late 13th–early 14th century)
H1: Junior mamluk horse-archer
This young warrior, wearing no armour while in training, would probably look much the same on campaign if he was acting as a lightly equipped skirmisher. He would then wear some kind of mail beneath his coat. His quiver has an opening in the side, perhaps for short arrows used with a *majra* arrow-guide. (Inlaid bronze basin, mid-13th C Syria—V & A Mus., no. 740-1898, London; 'Baptistère de St Louis', *c.*AD 1300 Egypt—Louvre, Paris; *Kitab al Sufar*, early 14th C Egypt—Brit. Lib., Ms. Or. 5323, London.)

H2: Mamluk heavy cavalryman
The heavily armoured élite of the Mamluk army was strongly influenced by Mongol and eastern Islamic fashions. This is particularly noticeable in this man's heavy lamellar cuirass. Some pictorial sources show what might be floppy felt hats (as here) but which could also be interpreted as *chapel-de-fer* helmets of European form. Note the Mamluk heraldic device on the man's gaiters. ('Baptistère de St Louis', *c.*AD 1300 Egypt—Louvre, Paris; inlaid brass tray, early 14th C Egypt—Mus. of Islamic Art, Cairo; inlaid brass bowl, late 13th C Egypt—Staatliche Museen, Berlin; Coptic Gospel, AD 1249/59 Egypt—Inst. Catholique, Ms. Copte-Arabe 1, Paris; enamelled glass flask, mid-13th C Egypt—Brit. Mus., no. 69.1-20.3, London; inlaid bronze pen-case, AD 1304 Syria—Louvre, Paris.

H3: Mongol refugee
A heavily layered felt coat was the most common Mongol protection, but this man also wears a scale cuirass. The hooked spearhead only seems to have been used by these people; and the round pendant ear-defences were similarly typically Mongol. (*World History*, AD 1306–14 Tabriz—University Lib., Ms. 20, Edinburgh; *Shahnamah*, *c.*AD 1300 Baghdad—Brit. Mus. Dept. of Orient. Antiq., London; helmet, early 14th C Mongol—Biyskiy Kraevedeski Museum; armour fragments, 13th–14th C Mongol—Abakan Mus. & Minusinsk Mus.; *Mongol Court Scene*, early 14th C Iran—Topkapi Lib., Ms. Haz. 2153, Istanbul.)



Masyaf in the Syrian coastal mountains was the centre of a tiny Nizari ('Assassin') state. The existing castle largely dates from the 13th century and overlooks a village still inhabited by Nizaris.

Notes sur les planches en couleur

A1 Costume turco-iranien simple, avec coiffe en feutre et manteau en laine épaisse. **A2** Nomade païen du Turkestan, nouveau venu dans le monde de l'Islam. Il porte un casque à rivets et une cuirasse en lamelles de cuir qui ne couvre que le devant de l'abdomen. **A3** Soldat-esclave professionnel, lourdement protégé par un casque en une pièce et une cuirasse de fer de construction écailles-cum-lamelles.

B1 Simple costume d'un volontaire civil. Un des deux javelins est conçu pour percer les armures. Le bouclier est du type *januwariyah*. **B2** Notez la similitude typique de l'équipement de ce cavalier à cotte de mailles avec certains éléments d'Europe méridionale ou de Byzance, le bouclier et les cuissardes par exemple. **B3** Notez le parasol, symbole d'autorité, porté par ce garde du corps du Calife; chemise de mailles portée sous la tunique brodée; casque sous le turban.

C1 Là aussi, une grande partie de cette tenue ressemble à la mode de Byzance. Un *ziyar*—grande arbalète montée dans un châssis—est utilisée pour tirer des pots incendiaires. **C2** Costume turcoman totalement typique. L'arc possède un *majra* ou guide pour tirer des flèchettes. **C3** Casque en fer peint avec protection de cou en cuir doré et cuirasse à lamelles de cuir, portée avec le costume turco-iranien.

D1 Le grand chef islamique est souvent décrit comme portant cette coiffe en feutre jaune, un châle blanc et une tunique *kazaghand* doublée de mailles. Une épée qu'on dit être la sienne est préservée dans le Musée Askeri d'Istanboul. En arrière-plan, une forme arabe de *mangonel*. **D2** Une des minorités de la cavalerie à armure lourde Ayyubid, avec un casque qui est peut-être européen, une armure en mailles partiellement recouverte de soie et une cuirasse à lamelles de fer; l'armure du cheval est en feutre. **D3** Ce mélange du costume turc et du costume iranien était porté par les troupes de palais dans tous les pays islamiques, et jusqu'en Egypte.

E1 Probablement d'origine grecque et largement équipé dans le style byzantin, quoique la lance à double extrémité soit un *zhupin* iranien. **E2** Appartenant à l'aristocratie turcoman d'Anatolie occidentale, mieux équipée, il porte des éléments caucasiens et pechenegs. **E3** Mélange typique de styles byzantins et asiatiques, par exemple le bouclier et la cuirasse de cuir respectivement.

F1 Les hommes des tribus arabes adoptaient rarement les styles iraniens ou turcs et il semble que l'armure préférée par eux était une simple chemise de mailles; des longues lances et des épées portées dans des baudriers étaient les armes habituelles. **F2** Il porte deux bannières Abbasid, sauvées lors d'une défaite devant les Mongols, et un sac de provisions en bandoulière. **F3** Les cavaliers transoxaniens étaient ceux qui avaient l'armure la plus complète des pays islamiques orientaux; notez le casque de l'Asie centrale avec visière articulée, chemise de mailles, cuirasse en lamelles de fer et protections de cuisse en cuir. L'épée est iranienne.

G1 Etant devenu à l'époque pratiquement l'un des états des croisades, l'Arménie utilisait principalement des équipements de guerre occidentaux; notez cependant l'épée légèrement coubée. **G2** L'influence turque était si dominante que ce géorgien est presque identique à ses voisins musulmans. **G3** A part légers changements, dans la longueur de la chemise par exemple, le costume des paysans arabes est pratiquement le même aujourd'hui.

H1 Il ne porte pas d'armure durant sa période de formation, mais il porterait une cotte de maille sous son manteau s'il était en campagne comme tirailleur léger. **H2** Notez les fortes influences de la Mongolie et des pays islamiques orientaux. Les cuissardes portent les marques héraldiques mamelouks. Il y a certaines indications du port de chapeau de soleil en feutre, mais c'étaient peut-être aussi bien des casques 'chapel-de-fer' européens. **H3** Costume mongol typique—manteau en feutre lourd, cuirasse d'armure en écailles, protections d'oreille.

Farbtafeln

A1 Einfaches türkisch-iranisches Jostüm mit Fellkappe und schwere Wollmantel. **A2** Heidnischer Nomade aus Turkistan, ein neueres Mitglied d Moslem-Welt. Er trägt einen vernieteten Helm und ledernen Lamellenpanz der nur den Vorderleib bedeckt. **A3** Berufssoldat von slawischer Herkunft, schw bewaffnet mit einteiligem Helmund eisernem Panzer aus Schuppen u Lamellen.

B1 Einfaches Kostüm für einen zivilen Freiwilligen. Einer der beiden Wurfspie ist für das Durchstechen von Panzern gedacht. Der Schild ist ein *Januwariy* Typ. **B2** Man beachte die typischen Gemeinsamkeiten zwischen der Ausrüstu dieses Panzerreiters und einigen südeuropäischen und byzantinischen Gege ständen, z.B. Schild und Beinschutz. **B3** Man beachte den Schirm, ein von diese Kalifenleibwächter als Zeichen der Autorität getragenes Zeichen, ausserdem d unter der bestickten Jacke getragene Kettenhemd und den Helm unter de Turban.

C1 Diese Ausstattung ähnelt ebenfalls zum grossen Teil der byzantinisch Fassung. Man beachte ein *Ziyar*, ein grosser, in einen Rahmen gespannter Bog der Feuertöpfe abschiesst. **C2** Ganz typische türkomanische Bekleidung. D Bogen hat einen *Majra* oder Leitkörper, der kurze Pfeile abschiesst. **C3** Bemal Eisenhelm mit vergoldetem ledernen Halsschutz und ledernem Lamellenpanz getragen mit einem türkisch-iranischen Kostüm.

D1 Der grosse Moslem-Führer wird häufig mit dieser gelben Filzkappe, eine weissen Schal und einer gepanzerten *Kazaghand*-Jacke beschrieben. Das Schw wird im Askeri-Museum in Istambul aufbewahrt. Im Hintergrund eine arabisc Form des Mangonel. **D2** Ein Vertreter der schwerbewaffneten Ayyubi Kavallerie, mit einer möglicherweise aus Europa stammenden Kopfbedeckur teilweise mit Seide bedecktem Kettenpanzer und einem eisernen Lamellenpa zer; die Panzerung für das Pferd ist aus Filz. **D3** Diese Mischung aus türkische und iranischem Kostüm wurde von Palastsoldaten überall in der islamisch Welt getragen, bis hin nach Ägypten.

E1 Vermutlich griechischer Herkunft und grösstenteils im byzantinischen S gekleidet; der doppelendige Speer ist allerdings in iranischer *Zhupin*. **E2** E Vertreter der besser ausgestatteten ostanatolisch-türkomanischen Aristokra mit kaukasischen und Pecheneg-Ausrüstungsgegenständen. **E3** Typisc Mischung aus byzantinischem und asiatischem Stil. z.B. der Schild bzw. d Lederpanzer.

F1 Arabische Stammesangehörige übernahmen nur selten iranische od türkische Elemente, und einfache Kettenhemde waren offenbar die bevorzug Ausstattung; lange Speere und an Gehenken getragene Schwerter waren d üblichen Waffen. **F2** Zwei bei einer Niederlage unter die Mongolen gerette Abbasid-Banner und eine übergeworfene Provisionstasche. **F3** Transoxanisc Reiter waren die am umfassendsten bewaffneten Krieger des östlichen Isla man beachte den mittelasiatischen Helm mit schwenkbarem Visier, d Kettenhemd, den eisernen Lamellenpanzer und die ledernen Schenkelschütz Das Schwert ist iranischen Usprungs.

G1 Armenien, inzwischen geradezu einer der Kreuzzugsstaaten, verwende überwiegend westliche Ausrüstung; man beachte allerdings das leicht gekrümm Schwert. **G2** Der türkische Einfluss war so stark, dass dieser Georgier mit sein moslemischen Nachbarn fast identisch ist. **G3** Abgesehen von klein Änderungen, z.B. der Hemdlänge, hat sich dieses arabische Bauernkostüm b heute kaum verändert.

H1 Der noch in der Ausbildung befindliche Kämpfer trägt keine Waffen, erh aber als leichter Schütze später Kettenpanzerung unter dem Mantel. **H2** M beachte die deutlichen mongolischen und islamischen Einflüsse. Der Beinschu ist mit Mamelucken-Wappen geschmückt. Was wie ein filzener Sonnenh aussieht, ist möglicherweise ein europäischer '*chapel-de-fer*'. **H3** Ein typisch mongolisches Kostüm: mehrschichtiger Filzmantel, Schuppenpanzer und run Ohrenschützer.

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Avec annotations en francais sur les planches en couleur.
Mit Aufzeichnungen auf Deutsch über den Farbtafeln

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